REQUEST FOR CEO ENDORSEMENT

PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND:GEF Trust Fund

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PART I: PROJECT INFORMATION

Project Title: Grid-connected Small Scale Photovoltaic Systems			
Country(ies):	Egypt	GEF Project ID:[1]	5064
GEF Agency(ies):	UNDP (select) (select)	GEF Agency Project ID:	4998
Other Executing Partner(s):	Industrial Modernisation Centre of the Ministry of Industry and Foreign Trade	Submission Date: Resubmission Date:	July 30, 2014 September 30, 2014
GEF Focal Area (s):	Climate Change	Project Duration(Months)	60
Name of Parent Program (if applicable): ➢ For SFM/REDD+ ☐ ➢ For SGP ☐ ➢ For PPP ☐	n/a	Project Agency Fee ($):	335,955

A. FOCAL AREA STRATEGY FRAMEWORK[2]

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount ($)	Cofinancing ($)
CCM-3 (select)	Investment in renewable energy technologies increased	Renewable energy capacity installed	GEF TF	2,830,141	29,693,912
CCM-3 (select)	Favourable policy and regulatory environment created for renewable energy investments	Renewable energy policy and regulation in place	GEF TF	706,223	566,088
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
		Total project costs		3,536,364	30,260,000

B. PROJECT FRAMEWORK

Project Objective: To encourage and accelerate the development of solar PV systems in Egypt						
Project Component	**Grant Type**	**Expected Outcomes**	**Expected Outputs**	**Trust Fund**	**Grant Amount ($)**	**Confirmed Cofinancing ($)**
1. Installation of grid-connected PV systems	Inv	A total of at least 4 MWp of small PV systems (of a few kW each) installed based on easily	Investments in small PV systems with a total capacity of 4 MWp.	GEF TF	2,300,000	28,200,000
	TA		Output 1.1: Finalised design of the support scheme to facilitate market take-off for the first 4 MWp of small decentralised privately-owned PV power generation (rooftop) systems,	GEF TF	190,000	300,000

[1] Project ID number will be assigned by GEFSEC.
[2] Refer to the Focal Area Results Framework and LDCF/SCCF Framework when completing Table A.

		replicable and scalable system design.	including finalisation of procedures and required templates to apply for this support. Output 1.2: A manual and template for PV system design and installation (with a link to Output 3.1), including sizing, orientation, technical requirements and economics to be released as a hard copy, internet-based and/or eventual smartphone application. Output 1.3: An established PV/project support centre (including dedicated website + hotline) to share and manage information on the 4 MWp programme and advise and guide potential clients through the different steps of applying for the available support and the design, purchase and installation of a PV system. Output 1.4: Public awareness-raising and marketing campaigns to promote the 4 MWp programme and support the implementation of the planned GoO and net-metering schemes. Output 1.5: Two in-depth reviews and evaluations of the progress of the 4 MWp programme and issues faced (prior to the standard mid-term review and final evaluation), including customer satisfaction surveys, technical and supply-side analysis, lessons-learned and recommendations for further development of the scheme. Output 1.6: A project mid-term and final workshop to present and discuss the results and potential next steps.			
2. Policy, institutional and regulatory framework	TA	A supportive policy, institutional and regulatory framework for providing a basis for sustainable growth of the	Output 2.1: Finalised implement-ation decrees and other required documents for ensuring that fully-operationalised GoO and net-metering schemes for selected tariff categories are in place to support small, decentralised PV installations. Output 2.2: Completed analysis of	GEF TF	225,000	400,000

		small, decentralised RE (in particular PV) power generation market.	eventual technical constraints in connecting small, decentralised PV systems to the grid and updating the related technical guidelines (or grid code) as needed, to overcome those constraints and to monitor the connections with the support of the local electricity distribution companies. Output 2.3: As applicable, recommendations for eventual grid strengthening needs and/or new guidelines for grid and load management for integrating small, decentralised PV systems into the power system on a larger scale. Output 2.4: Completed analysis of the current building regulations for both construction and management of buildings to identify any barriers to widespread implementation of rooftop PV systems in residential buildings + proposed amendments and measures to remove or overcome those barriers. Output 2.5: Drafted amendments to the existing laws and regulations and eventual new regulations to ensure adequate quality control of the PV systems offered in the market and their installation. Output 2.6: Finalised proposal (together with drafted legal and regulatory provisions) for the eventually-required complementary financial and fiscal incentives and other measures (such as RE purchase obligations of national electric utilities, mechanisms for administering and setting national feed-in tariffs, etc.) to support sustainable growth of the small, decentralised PV market after reaching the initial 4 MWp target. Output 2.7: An assessment and recommendations for waste management and recycling options for the PV systems and their			

			components upon reaching the end of their lifetimes (including, as needed, related drafting of new regulations/amendments to the existing legislation addressing the issue).			
3. Strengthening the PV technology supply and maintenance chain	TA	Strengthened domestic supply chain and quality control system and, as applicable, increasing domestic manufacturing and/or assembly of PV panels.	Output 3.1: Finalised technical and other quality criteria for the PV systems (including inverter and grid connection), installations and PV system suppliers and installers to benefit from the UNDP-implemented, GEF-financed project and related Government support. Output 3.2: Finalised training programme and training materials to train the key stakeholders (including system suppliers and installers) on the adopted technical and other quality criteria as a prerequisite for offering their products and services for the implementation of the 4 MWp programme and benefit from other financial and fiscal incentives. Output 3.3: A quality-controlled PV suppliers and installers database (as applicable, including also pre-tendered prices to be updated at regular intervals) with at least 5 pre-screened and trained system suppliers and 20 installers that have obtained a quality certificate (or recognition) to offer their services to the PV projects supported by the UNDP-implemented, GEF-financed project (with an emphasis on a 'one stop shop' approach). Output 3.4: Finalised design of a permanent quality control and certification scheme for both the hardware and installations, with related market surveillance and enforcement mechanisms and institutional arrangements to facilitate their effective implementation after the project. Output 3.5: Agreed methodology, institutional arrangements, procedures and mechanisms for	GEF TF	448,000	150,000

			effective market monitoring, producing regular annual market monitoring reports and able to continue such monitoring after the end of the UNDP-implemented, GEF-financed project. Output 3.6: Complementary training and other capacity development programmes for different professional groups, such as architects, building engineers and construction companies, to promote decentralised PV power generation in new buildings through integrated building and PV system design. Output 3.7: Public awareness raising and marketing support, including, as applicable, support for the establishment of a local Solar Energy Industry Association, which can continue the policy dialogue and operate as a knowledge management hub and training centre for further promotion of both the solar power generation and solar thermal markets.			
4. Create a financing framework to support the development of PV systems (and renewable systems in general)	TA	A financing framework and a network of local financial institutions to facilitate the financing of small, decentralised PV systems for a broad range of consumers.	Output 4.1: Required background studies, analysis and initial drafting of the proposed financing scheme(s) and support for required follow-up consultations with the financing entities interested in developing the scheme further. Output 4.2: Involvement of local community associations to act as intermediaries, helping to promote the lending mechanism and support the projects. Output 4.3: Technical due diligence of projects proposed for financing, and training of the staff of the participating banks on technical aspects of the projects. Output 4.4: Monitoring the impact and performance of the financing schemes introduced. Output 4.5: Final report on the results, experiences and lessons-	GEF TF	207,000	350,000

			learned and recommendations for further work as it concerns the project as a whole.			
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
Subtotal					3,370,000	29,400,000
Project management Cost (PMC)[3]				GEF TF	166,364	860,000
Total project costs					3,536,364	30,260,000

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME ($)

Please include letters confirming cofinancing for the projeSct with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Cofinancing Amount ($)
National Government	Ministry of Electricity and Energy	Cash	10,000,000
National Government	Industrial Modernisation Centre	In-kind	500,000
Private Sector	EgyptERA (as regulator of private-sector market)	Cash	15,000,000
National Government	Energy Efficiency Unit of the Council of Ministers	Cash	4,110,000
GEF Agency	UNDP	Cash	450,000
Other Multilateral Agency (ies)	RCREEE	In-kind	200,000
(select)		(select)	
(select)		(select)	
Total Co-financing			30,260,000

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

GEF Agency	Type of Trust Fund	Focal Area	Country Name/ Global	(in $)		
				Grant Amount (a)	Agency Fee (b)[2]	Total c=a+b
(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.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount ($)	Cofinancing ($)	Project Total ($)
International Consultants	127,500	450,000	577,500
National/Local Consultants	144,000	700,000	844,000

G. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? No

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

[3] PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF[4]

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.

No changes.

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

No changes.

A.3 The GEF Agency's comparative advantage:

No changes.

A.4. The baseline project and the problem that it seeks to address:

In the process of finalising the project document, the analysis of the baseline projects has been updated and, correspondingly, some minor changes - primarily at the output level and relating to the main targeted investors - have been incorporated into the project design. The problems the project seeks to address, the overall project objective and the outcomes have remained practically identical to the original PIF.

In the project implementation strategy, the Guarantee of Origin (GoO) scheme developed by EgyptERA remains at the centre of the baseline project. But, rather than seeking to blend the different low-cost and already existing sources of renewable energy (notably old hydro-power) and higher-cost new sources of renewable energy (such as PV), the proposed updated support scheme and baseline project focuses on new renewable energy generation only, while also initiating steps towards net-metering, as recommended by both the GEF Council and STAP comments received at work programme entry. In the proposed updated support scheme design, the customers paying the premium for renewable energy through the GoO scheme can now be sure that their contribution directly benefits new RE investments.

In the updated support scheme, the revenues from the GoO scheme to the households investing in PV are complemented by a net-metering scheme and, in the initial phase, also by a GEF grant contribution. Because of this reorientation of the baseline project, the focus of the GEF project had to shift correspondingly - away from targeting low-income households as the first wave of PV investors to, instead, those households subject to the highest residential tariff categories, since the lowest tariff categories within the current residential tariff structure in Egypt do not create adequate revenues to justify the investment, unless the value of the GoO certificates and/or other complementary grant support were to rise to a level that cannot be considered as realistic or reasonable in current circumstances.

With regard to the allocation of GEF resources across project components, the updated baseline analysis conducted during the PPG phase revealed that, since work programme entry, EgyptERA has made good progress in developing the GoO and net-metering scheme concepts, together with the required technical guidelines for grid connection. This work has also benefited from the support of RCREEE and JCEE, thereby somewhat reducing, although not removing, the need for further GEF support for these particular components.

On the other hand, the work and analysis conducted during the PPG phase indicated that, for effectively "kick-starting" the proposed support scheme and for creating an adequate volume of investment to contribute meaningfully to the required supply-side development, the proposed investment support would benefit from some additional grant resources to attract the first investors in sufficient numbers, while also ensuring that the direct targets of the project set in the PIF (consisting of 4 MWp of installed PV capacity) can be met swiftly. Consequently, US$ 0.49 million from the initial GEF allocation for Components 2 and 3 has been reallocated to Component 1 to complement the GoO and the net-metering schemes through support to the actual PV investments, while still ensuring that adequate

[4] For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter "NA" after the respective question.

resources remain for the required technical assistance activities. Further details of the proposed, slighty revised financial support scheme (as compared to the PIF) are provided in Chapter 2.1 of the Project Document under Outcome 1.

The concrete activities of Component 4 to facilitate the establishment of the targeted financing schemes will largely consist of those described under Outputs 4.1-4.4. The initial discussions during project preparation with financial institutions/donors, including the African Development Bank, the Swiss Agency for International Cooperation, the EU Delegation in Egypt and the Italian Embassy (as listed under Outcome 4 of Chapter 2.1. of the Project Document), revealed considerable interest from the financial community in entering the PV space, and Component 4 is very much positioned as an integral 'implementation' (as opposed to 'foundational' or theoretical) project element. At this stage, however, it is difficult for UNDP to make any commitments on behalf of financing institutions. A concrete target for Component 4, however, is to leverage at least USD 10 million from financing entities for small, decentralised PV investments (see the Project Results Framework on page 42 of the Project Document), which is considered to be a sufficiently 'hard' and ambitious target.

The immediate project target is to facilitate the installation of at least 4 MW_p of new PV capacity, deploying financial incentives in the form of the net-metering scheme, GoO certificates and supplementary GEF grants. These incentives are considered to be sufficient for the highest-tariff category customers who will be targeted at the first stage. As such, success with Component 4 may not be critical for reaching this immediate project target. Component 4, however, is important for expanding the PV market in Egypt beyond the initial 4 MW_p target. Should the project be successful in achieving its most immediate targets in terms of operationalising the net-metering and GoO schemes and reaching the first 4 MW_p of installed PV capacity, the Government of Egypt and EgyptERA are expected to consider further expansion of the PV promotion programme. The net-metering and GoO schemes, together with future tariff reform (higher grid electricity prices) and falling PV prices, are expected to attract interest from new investors – including from lower-income groups – but may not in themselves be sufficient to enable lower-income households to participate. The loan mechanisms to be developed under Component 4 in conjunction with financial institutions and community associations will be a crucial additional financial enabler for expanding the PV market. Such locally-tailored loan schemes may also accelerate achievement of the initial 4 MW_p target under Component 1, but their real importance lies more in facilitating further expansion of the market.

A. 5. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:
Resulting from an updated, more conservative GHG reduction assessment by reducing the calculation period from 25 to 20 years as per the standard GEF methodology (although the lifetime of good-quality PV units typically exceeds 25 years), the capacity factor from 0.2 to 0.17, and the grid emission factor from 0.57 tCO2/MWh to 0.55 tCO2/MWh, the direct GHG reduction impact corresponding to the 4 MWp of installed PV capacity is somewhat smaller than indicated in the PIF (66.0 ktCO2 compared with the 99.9 ktCO2 total stated in the PIF). The rationale and justification of the project relies more on its indirect impact, however, by initiating and providing a basis for sustainable growth of the PV market for small, decentralised private roof-top applications. Besides targeting the private sector, the project will provide required technical assistance to the ongoing public sector intitiatives to install PV systems on the roofs of all suitable public buildings, the impact of which is - conservatively - not taken into account in the direct GHG reduction estimates. By also accounting for the project's indirect impact, the project is expected to result in global environmental benefits of at least 0.6-0.7 million tonnes of CO2 avoided from PV installations completed by 2029 from the private sector alone, which could easily be doubled by also considering the public sector. Further details can be found from Annex 7.4 of the Project Document.

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:

The risk assessment has been updated during the project preparatory phase, with some complementary risks added (as described in further detail in Annex 7.1 of the Project Document). However, the risks remain similar to those already described in the PIF.

A.7. Coordination with other relevant GEF financed initiatives

No changes.

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1 Describe how the stakeholders will be engaged in project implementation.

A Project Board will be established at the inception of the project to monitor project progress, to guide project implementation and to support the project in achieving its listed outputs and outcomes. It will be chaired by the National Project Director and will include representatives of the Ministry of Electricity and Energy, IMC, EgyptERA, NREA and UNDP. Other members can be invited at the decision of the Project Board on an as-needed basis, but taking due regard that the Board remains sufficiently lean to be operationally effective. Other participants can be invited into the Board meetings at the decision of the Board. Other stakeholders to be engaged in project implementation are discussed in Chapter 1.3 of the Project Document, with further details provided in Annex 7.5

B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF):

The socioeconomic benefits to be delivered by the project are discussed in Chapter 2.3 of the Project Document, including the creation of green jobs, improving energy supply and security, catalysing private investment and contributing to efforts to close the gender gap in incomes.

B.3. Explain how cost-effectiveness is reflected in the project design:

In designing the financial support scheme, an effort has been made to maximise the impact of the limited GEF resources from the very beginning. GEF funds will not be used to provide 100% grant financing for the investments, but they will complement the planned other sources of revenues only to the extent that the investment becomes financially feasible. From the total allocated GEF resources of USD 3.536 million, USD 2.3 million will be used for the direct investment support, while the remainder is for technical assistance contributing to the promotion of the decentralised PV market in Egypt. After the initial GEF support to help to kick-start the residential PV market, the market is expected to continue to grow by relying on the planned Government / EgyptERA support schemes (i.e. the net-metering and guarantee of origin schemes) only. The combined direct and indirect global benefits of the project have been assessed at approximately 700 kilotonnes of CO2eq. With a GEF funding request of US$3.54 million, this corresponds to an abatement cost of approximately USD 5 per tonne of CO2 reduced.

C. DESCRIBE THE BUDGETED M &E PLAN:

Project monitoring and evaluation will be conducted in accordance with the established standard UNDP and GEF procedures described in further detail in Section 5 of the Project Document.

A Project Inception Workshop will be held within the first 4 months of project start with those with assigned roles in the project organisation structure, the UNDP Country Office and – where appropriate/feasible – regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

The Inception Workshop will address a number of key issues, including:

- Assist all partners to fully understand issues and take ownership of the project.

- Detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis-à-vis the project team.

- Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms.

- The Terms of Reference for project staff will be discussed again as needed.

- Based on the project results framework and the CC-M GEF Tracking Tool, the first annual work plan will be finalised.

- Review and agree on the indicators, targets and their means of verification, including adding of, and agreement on, the mid-term targets of each outcome in the project's M&E plan and re-check assumptions and risks.

- Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget will be agreed and scheduled.

- Discuss financial reporting procedures and obligations, and arrangements for annual audit.

- Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

- An Inception Workshop report is a key reference document and will be prepared and shared with participants to formalise various agreements and plans decided during the meeting.

Quarterly M&E:

Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.

Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP-GEF projects, all risks associated with financial instruments such as revolving funds, micro-finance schemes or capitalisation of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).

Based on the information recorded in Atlas, Project Progress Reports (PPRs) can be generated in the Executive Snapshot.

Other ATLAS logs can be used to monitor issues, lessons-learned, etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annual M&E:

Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and, in particular, for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made towards project objective and project outcomes – each with indicators, baseline data and end-of-project targets (cumulative)

- Project outputs delivered per project outcome (annual)

- Lessons-learned/good practice

- AWP and other expenditure reports

- Risk and adaptive management

- ATLAS QPR

Periodic Monitoring Through Site Visits:

The UNDP Country Office and the UNDP Regional Coordination Unit will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first-hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

Mid-Term of Project Cycle:

The project will undergo an independent Mid-Term Review at the mid-point of project implementation. The Mid-Term Review will determine progress being made towards the achievement of outcomes and will identify course corrections if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons-learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organisation, terms of reference and timing of the Mid-Term Review will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-Term Review will be prepared by the UNDP Country Office based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Centre(ERC).

181. TheCC-M GEF Focal Area Tracking Tool will also be completed during the mid-term evaluation cycle.

End of Project M&E:

An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Centre (ERC).

184. The CC-M GEF Focal Area Tracking Tool will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarise the results achieved (objectives, outcomes, outputs), lessons-learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

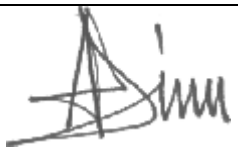
PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

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 form. For SGP, use this OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Dr. Fatma Abou Shouk	GEF OFP, Chief Executive Officer	Egyptian Environmental Affairs Agency	08/07/2012

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 CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date *(Month, day, year)*	Project Contact Person	Telephone	Email Address
Adriana Dinu UNDP – GEF Executive Coordinator and Director a.i.		September 30, 2014	Robert Kelly, Regional Technical Advisor	+49 173 931 0204	robert.kelly@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).
The project results framework is presented in Section 3 of the Project Document.

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD: The Government of Egypt, private sector and civil society have complied with Multilateral Environmental Agreements, adopted policies, and implemented operational measures towards a green and sustainable economy and society including, EE, RE, low carbon cleaner technologies, SWM, POPs, ODS, and Carbon Finance Mechanism.					
Country Programme Outcome Indicators: N/A					
Primary applicable Key Environment and Sustainable Development Key Result Area: Mainstreaming environment and energy					
Applicable GEF Focal Area Objective: GEF-5 FA Objective # 3 (CCM-3): "Promote Investment in Renewable Energy Technologies"					
	Indicator	**Baseline**	**Targets End of Project**	**Source of verification**	**Risks and Assumptions**
Project Objective[5] Reducing greenhouse gas emissions by the removal of barriers to widespread application of decentralised PV-based power generation.	Amount of reduced CO_2 emissions by the investments facilitated by the project.	0	Direct: 66 kilotonnes of CO_{2eq} over the 20-year default lifetime of the investments made during project implementation. Indirect: At least 0.6 million tonnes of CO_{2eq} over the 20-year default lifetime of the investments made within 10 years after the project end.	Project monitoring reports and final evaluation. As applicable, post-project market monitoring and evaluations.	Adoption of a supportive regulatory framework for the GoO and net-metering schemes and other related financial incentives in order to create a sufficiently attractive revenue stream for targeted PV investments and facilitate the required grid connections.
Outcome 1:[6] A total of 4 MW_p of small PV systems (of a few kW each) installed based on easily replicable and scalable	Total capacity of installed rooftop PV systems by the private sector and electricity generated	Negligible (significantly less than 100 kW_p per year)	At least 4 MW_p of installed rooftop PV capacity, producing 6,000 MWh of electricity per year.	Project market monitoring reports and final evaluation.	As above.

[5] *Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR*
[6] *All outcomes monitored annually in the APR/PIR. It is highly recommended not to have more than 4 outcomes.*

system design.	by them.		More than 1,000 households and SMEs together benefitting from PV-generated electricity.		
	Indicator	**Baseline**	**Targets** **End of Project**	**Source of verification**	**Risks and Assumptions**
Outcome 2: A supportive policy, institutional and regulatory framework for providing a basis for sustainable growth of the small, decentralised RE (in particular PV) power generation market together with related market monitoring mechanisms.	Extent to which policies and regulations for decentralised RE and PV in particular are adopted and enforced.	Draft Electricity Law and draft implementation degrees for GoO and net-metering scheme prepared. Draft grid code finalised, but final approval pending.	The required financial and fiscal incentives and enabling technical requirements for grid connection effectively implemented and supported by the required laws and regulations, providing a basis for continuing market growth after the project with a growth rate of at least 20% per year observed at the end of the project.	Official Gov't publications. Project final evaluation. Post-project monitoring, as applicable.	The proposed legal and regulatory improvements passing swiftly through the Government approval process Required sustainability and predictability of the legal and regulatory acts (and the related financial and fiscal incentives) to prevent damaging 'stop and go' dynamics.
Outcome 3: Strengthened domestic supply chain and quality control system and, as applicable, increasing domestic manufacturing and/or assembly of PV panels.	Level of customer satisfaction on the quality, pricing and ease of purchasing a PV system, having it installed and obtaining the required after-sales services.	No well-established PV supply-side and quality control mechanism to facilitate easy purchasing of a PV system and guaranteeing its quality.	Customers able to purchase a PV system and have it installed through a 'one stop shop' model at competitive prices and the established quality control system, ensuring adequate quality and customer satisfaction for both the hardware and the installation (including required after-sales services).	Regular annual consumer surveys. Local and international PV market reviews. On-site inspections of the installations and the system performance.	Adequate market size to support the mobilisation of the supply-side. Adequate number of companies and trained individuals to ensure adequate supply of the required products and services and adequate price competition.
Outcome 4: A financing framework and a network of local financial	Volume of financing leveraged for small decentralised PV	Practically 0 aside from some demo projects.	At least USD 10 million by the end of the project.	Annual project implementation reviews and final	Adequate demand for, and competitively-priced financing products able to

institutions to facilitate the financing of small, decentralised PV systems for a broad range of consumers.	investments from financing entities active in Egypt.			evaluation.	provide, long-term financing. Banks' requirements for securities within clients' limits.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Comments from GEF Council at work programme inclusion:

Germany requests that the following requirements are taken into account during the design of the final project proposal; in addition, Germany requests that the Secretariat sends draft final project documents for Council review four weeks prior to CEO endorsement:

1. We support the STAP comment that experience regarding feed-in tariff regulation from Europe and elsewhere should be taken into account.

2. Component 1 of the activity is the “construction, installation and grid connection of PV systems". The cost of 4 MWe of photovoltaic systems is indicated at a total of 22.9 million USD meaning nearly 6 USD/kWe. This is far above the current market price of around 1-2 USD/kWe and cannot be justified through other activity included under component 1 like development and dissemination of a design and implementation plan. Design should be very simple as it is mainly 0.5-2.0 kV PV systems. Clarification is sought about the services covered under this item and if provision of PV systems will be tendered internationally.

3. Clarification is also sought on whether grid connection and power purchase agreement support are well aligned with the assumed average size of PV systems and whether own consumption by the households might not be appropriate, as well (please also include comment by STAP on “net metering”).

4. Clarification is sought on whether component 3.1 requires development of new documents or if translation of existing documentation could be a solution.

5. The most critical issue of the activity to achieve its goal, the promotion of small PV systems in Egypt, is the price paid by buyers of PV electricity. Please indicate in the final project document the assumed price level. Before spending the GEF grant on the establishment of 4 MWe of PV systems, the training of staff (service, planning, design, etc.) and the installation of a revolving fund, the economic feasibility should be assessed in depth.

6. Clarification is sought on whether the development of local manufacturing is intended and how this is intended as solar panel production requires high investments. In Germany, for example, years of very high subsidation of PV systems through the renewable energy act were necessary to bring down production costs. See also Table 2, page 11, Component 1, outputs 1.1 and 1.2: “will build local capacity to manufacture basic components”: What is meant by basic components and is there a cost reduction potential compared to imported components?

7. Section B.3., para (7): It is not clear why maintenance should provide an opportunity for women seen as homemakers to generate income.

Response:

1. The experience regarding feed-in tariff regulation from Europe has been reviewed and taken into account in designing the project, including observations and conclusions of the work conducted in the framework of the "International Feed-In Cooperation" initiative, launched by the the governments of Germany and Spain in 2004 with an objective of promoting the exchange of experience concerning feed-in systems, increasing their efficiency and effectiveness, supporting other countries in their endeavours to develop and improve feed-in systems, and contributing knowledge about such systems in general. As concluded by the studies undertaken (for instance: http://www.feed-in-cooperation.org/wDefault_7/content/research/index.php): "Feed-in systems have been proven to be flexible on the adjustment to market developments and it is therefore important that they are designed smartly to support renewables in a cost efficient way. Some of the listed best practice design elements (depending also on the type of RE technology considered) include: regular degression of tariffs, growth corridors and cap, stepped tariff design, support for auto-producers through net metering and tenders to establish the level of support. Furthermore, the conclusions of the workshop organized in October 2013 (http://www.feed-in-cooperation.org/wDefault_7/content/10th-

workshop/index.php) emphasized that "there is no “one-fits-all” solution, but costs and benefits for the participating countries have to be carefully taken into account in order to develop balanced win-win solutions". The support scheme proposed for Egypt takes into account the experiences from other countries, but has also factored in the specific national circumstances and framework conditions, which do not support the introduction of a full-fledged feed-in tariff system yet, but for which the support scheme elaborated in Chapter 2.1 of the Project Document can be viewed as an initial step.

2. Agreed and reflected in the updated cost analysis shown in the Project Document (for further details, see Chapter 2.1).

3. The proposed updated support scheme takes the mentioned points into account, including net-metering.

4. Indeed, the development of "an operational manual and guide for PV unit installation" (former output 3.1 of the PIF, currently output 1.2 of the updated project design) does not need to be started from scratch and similar documents from other countries can be used as a basis, but it also has to address the eventual complementary requirements and procedures in Egypt. Thus, merely a translation of a document from another country will not be sufficient. It is also agreed that not a significant amount of financial resources are required for this. In fact, the bulk of this work is expected to be done by the core project team also involved in other project activities.

5. Agreed and done (see Chapter 2.1, Outcome 1 for further details).

6. There are some companies in Egypt already assembling PV panels. Manufacturing of the actual cells in Egypt is not foreseen yet, but assembly is. No particular measures are included into the project design to support local manufacturing, but the project focus will be on strengthening the supply chain in general.

7. In Egyptian society, women generally manage household needs: the benefits of the PV-derived income will therefore accrue disproportionately to women’s societal role, without substantial physical burden or time investment. Moreover, the growth of a rooftop PV power market will create new commercial opportunities for cleaning and maintaining PV systems (e.g. regular removal of dust), which may develop as an off-shoot of the established maid/domestic service labour market and which may, therefore, open up new employment opportunities for women. As PV take-up trickles down to lower-income, multi-residential buildings (e.g. apartment blocks), further paid opportunities may emerge for female residents (who spend a disproportionate amount of time indoors at home) to maintain communal PV systems on shared rooftops.

Comments from the STAP at work programme inclusion

1. The baseline for solar PV electricity generation is "no meaningful contribution" but it would be good to better quantify that. Would adding 4 MW then make it "meaningful" or not? At 4MW total and $25M investment (but including training etc), this equates to around $6/W installed which is relatively expensive, especially at present solar PV panel prices at around $1 /W - though it is noted the 4 MW is "highly conservative" and that some funds will be recycled for additional future project support. $35/t CO2 avoided is relatively high but fairly typical for solar PV projects. Furthermore, the calculated electricity price premium for renewable electricity above the current power price (from mainly fossil fuel generation), of around $0.013/kWh is the equivalent to the carbon price needed to gain a level playing field for renewables. Cost-effectiveness component of this project should be carefully scrutinized and assured during project preparation.

2. It is assumed safety issues will be included within the Grid Code (such as modern inverters that cut generation immediately mains power supply is shut off for any reason) but it is not clarified.

3. PIF gives no information about providing grid access priority for renewables, including for solar PV systems. Feed-in-tariffs for solar PV have been drastically amended in several EU countries (e.g. Spain, Italy, Germany, UK) due, in-part, to the fiscal situation but also to the recent lowering purchase price of PV panels. It is hoped that Egypt will learn from these experiences of others prior to implementing its own support policies. Ideally such policies will be long-term

but incorporate a reduction in tariffs as learning experience is gained and total installed costs per Watt decline. Information about financial incentives should be provided in the project document.

4. The intention to sell "green electricity" is commendable but careful setting of the incremental price is critical for success. Surveys of consumers have tended to show that although respondents say they would pay a premium, when the opportunity arises they renege. Once again, learning from other countries is key. It is good if the potential for net-metering in the future has been considered by this project.

Response:

1. With regard to the overall power generation structure and capacity in Egypt (for further details see Annex 7.5 of the Project Document), it is obvious that 4 MW of PV does not make any significant contribution to the overall total. Its importance lies, however, in testing and kick-starting the market for residential rooftop PV systems, the market for which is still practically non-existent in Egypt. Therefore, in evaluating the project's cost-efficiency in terms of USD per avoided tonne of CO2, not only should the project's direct impact (through the installed 4 MWp) be taken into account but, far more importantly, its foreseen catalytic effect, resulting in much higher amounts of avoided emissions. By combining the project's direct and indirect emission reduction targets, the costs of avoided CO2 should remain under USD 5 per tonne of CO2. With regard to the initial cost estimates, a reference is made to the response provided above to a similar question made by Germany in the GEF Council. For assuring cost-efficient use of the GEF resources and sustainable promotion of the PV market in general, the GEF support is limited from the very beginning to about 25% of the total investment costs.

2. A note about this has been included in the description of the related project component (Chapter 2.1, Outcome 2).

3. Valid remarks, which have been taken into account in the project design, including an option to gradually reduce the level of support should the fall in PV system prices continue. It is also to be noted that the proposed financial support scheme does not directly depend on the available resources of the state budget, which may reduce the risks of damaging "stop-go-dynamics" associated with renewable energy policy reversals, which have been evident in some other countries, including in the EU. With regard to the priority grid access, all the rooftop PV systems meeting the required technical criteria will have guaranteed access to the grid.

4. The updated design of the proposed support scheme relies on three complementary financial support mechanisms described in further detail in Chapter 2.1 of the Project Document: 1) Net (or two-way) metering, initially targeting customers with the highest residential tariff category, 2) Revenues from the Guarantee of Origin certificates, for which EgyptERA may also include obligatory RE quotas for some selected customer groups; and 3) in the initial phase, a complementary GEF grant component, which is expected to be later removed as a result of further reductions in PV system prices, increasing residential tariffs, increasing value of the GoO certificates and - potentially - introduction of new feed-in tariffs to replace or complement the support scheme launched in the framework of the UNDP-implemented, GEF-financed project.

Comments from the GEF Secretariat at work programme inclusion:

1. A more detailed description of the policies frameworks to be developed and implemented is needed.

2) We need to see a clear application of the GEF GHG methodology that includes direct, post-project direct, and indirect emissions benefits.

Response:

1) The current policy and institutional framework in Egypt as well as the other past and ongoing activities are described in Section 1 of the Project Document, while the new policy frameworks sought to be developed and implemented with project support are described primarily in Chapter 2.1 of the Project Document.

2) The methodology used to estimate the project's direct and indirect emission benefits is presented in Annex 7.4 of the Project Document.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS[7]

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF: **80,000**			
Project Preparation Activities Implemented	***GEF/LDCF/SCCF/NPIF Amount ($)***		
	Budgeted Amount	***Amount Spent Todate***	***Amount Committed***
Logical framework analysis; project document and CEO ER finalisation	10,000	4,500	5,500
Stakeholder and project mapping exercise	15,000	6,000	9,000
Analysis of legal and regulatory framework	31,000	9,200	21,800
PV market analysis	24,000	11,500	12,500
Total	80,000	31,200	48,800

[7] If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used**)**

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

N/A