

# Scientific and Technical Advisory Panel

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility  
(Version 5)

## STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: February 28, 2013

Screener: Lev Neretin

Panel member validation by: Ralph E. Sims  
Consultant(s):

### I. PIF Information *(Copied from the PIF)*

**FULL SIZE PROJECT    GEF TRUST FUND**

**GEF PROJECT ID:** 5064

**PROJECT DURATION :** 5

**COUNTRIES :** Egypt

**PROJECT TITLE:** Grid-Connected Small-Scale Photovoltaic Systems

**GEF AGENCIES:** UNDP

**OTHER EXECUTING PARTNERS:** Ministry of Industry and Foreign Trade

**GEF FOCAL AREA:** Climate Change

### II. STAP Advisory Response *(see table below for explanation)*

Based on this PIF screening, STAP's advisory response to the GEF Secretariat and GEF Agency(ies): **Consent**

### III. Further guidance from STAP

This project aims to expand the uptake of grid-connected solar PV projects at the small to medium distributed scale. There is much overseas experience so it is good this will be sourced.

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.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
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<p><b>1. Consent</b></p>	<p>STAP acknowledges that on scientific or technical grounds the concept has merit. However, STAP may state its views on the concept emphasizing any issues where the project could be improved.</p> <p>Follow up: The GEF Agency is invited to approach STAP for advice during the development of the project prior to submission of the final document for CEO endorsement.</p>
<p><b>2. Minor revision required.</b></p>	<p>STAP has identified specific scientific or technical challenges, omissions or opportunities that should be addressed by the project proponents during project development.</p> <p>Follow up: One or more options are open to STAP and the GEF Agency:</p> <ul style="list-style-type: none"> <li>(i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions.</li> <li>(ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.</li> </ul>
<p><b>3. Major revision required</b></p>	<p>STAP has identified significant scientific or technical challenges or omissions in the PIF and recommends significant improvements to project design.</p> <p>Follow-up:</p> <ul style="list-style-type: none"> <li>(i) The Agency should request that the project undergo a STAP review prior to CEO endorsement, at a point in time when the particular scientific or technical issue is sufficiently developed to be reviewed, or as agreed between the Agency and STAP.</li> <li>(ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.</li> </ul>