

# 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: May 08, 2015

Screeners: 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:** 9085

**PROJECT DURATION :** 2

**COUNTRIES :** South Africa

**PROJECT TITLE:** Equity Fund for the Small Projects Independent Power Producer Procurement Programme (non-grant)

**GEF AGENCIES:** DBSA

**OTHER EXECUTING PARTNERS:** Department of Energy

**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):  
**Minor issues to be considered during project design**

### III. Further guidance from STAP

1. The project's aim is to remove barriers to accessing finance by SMEs in the RE market in South Africa. This will enable more SMEs to participate in the industry. It is assumed these SMEs are manufacturers, installers, and developers of RE equipment and projects. From the wording of the proposal it is not entirely clear who these SMEs are so they could be working in other forms of business (such as dairy farms or car service stations, or retail outlets) but wishing to use RE in their business by investing in their own solar PV panels or wind turbines. It would be useful to give examples of exactly who these SMEs might be.
2. It is disappointing that the South African government is resorting to large coal-fired power plants given the renewable energy resources are good. Having 9600 MW of new coal-power under construction, plus reactivating of the three older plants, somewhat dwarfs the 3725 MW of large scale plants plus 200MW of small scale plants. The Technical Assistance Facility will provide around \$280,000 each for 20 projects. Total of around 100MW anticipated so around 5MW average per project. The SP-IPPP has already been launched. The evaluation of the bids is the next step- will this be done before GEF funding is confirmed or does it hinge on that contribution?
3. Not clear why the mix of 80% solar PV, 10% wind and 10% biogas was chosen. What criteria will be used to select projects for funding?
4. If have 100 MW total capacity of that mix and the Eskom estimated generation is 287.6 GWh/yr, then the average capacity factor is 32% which seems fairly high. Where is the Eskom calculation referenced?
5. Eskom estimated 287.6 GWh/yr so the assessed GHG emission reduction is based on an emission factor for South Africa of around 900 g CO<sub>2</sub>/kWh. This emissions factor matches that from IEA data of 913 g CO<sub>2</sub>/kWh in 2012.
6. STAP acknowledges that experienced contractors will be employed to operate and maintain the plants. But who owns the land where they will be situated and will the landowner receive a rental?
7. What feedstock will the biogas plants use and how reliable a supply is it? This could be a project risk that has to be considered during project preparation. If there are already 25 biogas projects in the pipeline, will these 2 biogas plants be in addition to those? Will the developers of them under this equity scheme be able to access data and knowledge from the initial ones of the 25 so as to learn from those experiences? It

will be difficult to assess the baseline if some of these plants are operational unless, for all the 20 projects in this DBSA proposal, they are all seen to be additional to the other projects already planned. How will that be determined during the bidding process? Will all the power generated be exported to the national grid? Will any be sold to local users? Will the biogas plant also be able to sell any useful heat under a co-generation arrangement or will that just go to waste?

8. Under the knowledge management component, it states that the project aims to share experiences on building financial models in South Africa. STAP recommends DBSA to consider sharing this experience regionally. UNIDO and UNDP have several ongoing projects improving energy access and efficiency in South African SMEs. STAP recommends exploring complementarities with the following projects: GEF IDs: 5341, 5379, 5515, and 5704.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Concur</b>	In cases where STAP is satisfied with the scientific and technical quality of the proposal, a simple “Concur” response will be provided; the STAP may flag specific issues that should be pursued rigorously as the proposal is developed into a full project document. At any time during the development of the project, the proponent is invited to approach STAP to consult on the design prior to submission for CEO endorsement.
<b>2. Minor issues to be considered during project design</b>	<p>STAP has identified specific scientific /technical suggestions or opportunities that should be discussed with the project proponent as early as possible during development of the project brief. The proponent may wish to:</p> <p>(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised.  (ii) Set a review point at an early stage during project development, and possibly agreeing to terms of reference for an independent expert to be appointed to conduct this review.</p> <p>The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.</p>
<b>3. Major issues to be considered during project design</b>	<p>STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical methodological issues, barriers, or omissions in the project concept. If STAP provides this advisory response, a full explanation would also be provided. The proponent is strongly encouraged to:</p> <p>(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised; (ii) Set a review point at an early stage during project development including an independent expert as required.</p> <p>The GEF Secretariat may, based on this screening outcome, delay the proposal and refer the proposal back to the proponents with STAP’s concerns.</p> <p>The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.</p>