

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: September 26, 2015

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: 9258

PROJECT DURATION : 5

COUNTRIES : India

PROJECT TITLE: Creating and Sustaining Markets for Energy Efficiency

GEF AGENCIES: ADB and UNEP

OTHER EXECUTING PARTNERS: Energy Efficiency Services Limited (EESL)

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):
Concur

III. Further guidance from STAP

1. The aim is to stimulate investment in EE through scaling up of LEDs in street and domestic lighting, ceiling fans, tri-generation, and smart grids. This includes social marketing, finance mechanisms, supply contracts. STAP commends project proponents for well-structured proposal with a strong national ownership and several innovative elements. Reducing electricity demand from India's grid, which is 70% coal-fired, by improved appliance efficiency would have multi-benefits including reducing CO2 emissions. EE has received considerable support by the Government over the past decade including establishment of Energy Efficiency Services Limited (EESL) in 2009. Also the ESCO business model has been introduced but has faced various barriers including mistrust by clients. This project aims to reduce these barriers.
2. Baseline technologies are well outlined. These include smart grids that have potential to help reduce the very high power system losses of 25%. Government loans are available for line companies to invest in smart-metering which, combined with EE (through EESL) can help reduce peak loads. This is an innovative approach but EESL and other project partners are advised to carefully review the numerous smart-grid initiatives being undertaken worldwide. Examples include <http://ogjresearch.stores.yahoo.net/smart-grid-review-january.html> ; <http://www.smartgridtechnology.net/> ; http://www.irena.org/DocumentDownloads/Publications/smart_grids.pdf and IEA's co-operative programme: <http://www.iea-iscan.org/?c=1>
3. However, it appears the smart-grid potential is already evolving rapidly in India with considerable input from the private sector including ABB, GE, L&T, Schneider Electric and Wipro (<http://www.sbwire.com/press-releases/smart-grid-market-2015-in-india-review-research-size-share-industry-analysis-trends-and-forecast-2019-622047.htm>). So the project proponents should consider including more actively the private sector, in addition to the power distribution companies, among the project partners which is not currently the case.
4. Tri-generation suits the Indian climate so should be encouraged, but it is not clear from where the technologies are to be sourced. Are they locally made or imported? Are the systems economically viable? Will demonstrations be established and if so where? As for LEDs and efficient ceiling fans, no evidence is provided on the projected return on investment as a result of energy savings. The smart-grid example shows gains but mainly from reduced losses and theft of power.
5. The alternative scenario involves financial mechanisms to stimulate greater investment. GEF funding will help reduce GHG emissions through energy efficiency, scaling up and applications of the new technologies.
6. A total potential GHG saving of 8.53 Mt CO2-eq is claimed, but insufficient details were provided in Section 5 for the calculations and assumptions used.

<i>response</i>	
1. Concur	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.
2. Minor issues to be considered during project design	<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>
3. Major issues to be considered during project design	<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>