

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: October 07, 2013

Screeners: Nijavalli H. Ravindranath

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: 5357

PROJECT DURATION : 5

COUNTRIES : Ukraine

PROJECT TITLE: Removing Barriers to Increase Investment in Energy-Efficiency in Public Buildings

GEF AGENCIES: UNDP

OTHER EXECUTING PARTNERS: State Environmental Investment Agency of Ukraine, Ministry of Regional Development, Housing, Construction, and Communal Economy, Ministry of Natural Resources and Ecology

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

The project aims at market transformation in energy efficiency in public buildings in Ukraine. This is a typical project in promoting energy efficiency in buildings and the project components, outputs and activities of this project are similar to many other GEF projects. STAP wishes to propose a number of considerations in going forward during the next phase:

1. The rationale for focusing on improving energy efficiency in public buildings is very clear in the PIF and the problem with respect to improving energy efficiency in public buildings is also very well explained. The PIF also provides a very good table describing the baseline situation for each of the components of the project.
2. STAP's study on "Climate Change: A scientific assessment for GEF" (STAP, 2012) shows that in moderate and cold climates it is feasible and cost-effective for both new buildings and retro-fits to reduce heat energy needs by 70-90% compared to standard practice. (The study can be downloaded at www.stapgef.org) STAP has recommended high performance retro-fits for EITs. STAP recommends reference to the above STAP report and in particular Table 4.2 for potential mitigation options in the building sector.
3. STAP recommends identification of retro-fit technologies for public buildings and adoption of an integrated building concept covering heating, lighting, appliances, water heating, etc and application of advanced IT systems (STAP 2012).
4. Under Component 2, information on the investment required and the cost effectiveness of investment in different technologies and the savings in electricity and heating bills for the public sector agencies is necessary. How will the financial incentives be sustained? And what will be the source of financing?
5. Under Component 3 it is proposed to invest USD 1 million/building for demonstrating energy efficient systems. The question is will such a large investment lead to significant reduction in energy use and cost reductions for the utility owning the building. Thus, care should be taken to incorporate such technologies which provide significant savings in energy at moderate or low cost.
6. Developing minimum energy performance standards should give long term benefits. It is assumed most buildings are heated with cheap natural gas. This makes the cost-effectiveness of energy efficient investments less enticing so regulations are required.

7. Estimating energy efficiency costs per building can only be indicative in the proposal until specific buildings have been selected when their size, age, construction materials, function etc. is then known. So the quoted costs can only be treated as indicative. This also applies to the mitigation potentials of the 8 demonstration buildings. Also when calculating CO2 emissions avoided, the possibility of a rebound effect should be taken into account?

8. For demonstrations, simple payback periods will provide useful information that is easily understandable, but more rigorous analysis should be required for MRV. Seasonal variations, particularly in heating/cooling demands mean all year round monitoring against a 12 month baseline will be needed.

9. The planned international conference on energy efficiency should include some building owners and energy managers to give their side of the story and lessons learned from a practical perspective.

| <i>STAP advisory response</i> | <i>Brief explanation of advisory response and action proposed</i> |
|------------------------------------|---|
| 1. Consent | <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> |
| 2. Minor revision required. | <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: (i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions. (ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.</p> |
| 3. Major revision required | <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: (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. (ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.</p> |