

# 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 04, 2012

Screener: Lev Neretin

Panel member validation by: Nijavalli H. Ravindranath  
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### I. PIF Information *(Copied from the PIF)*

**FULL SIZE PROJECT    GEF TRUST FUND**

**GEF PROJECT ID:** 4861

**PROJECT DURATION :** 3

**COUNTRIES :** Argentina

**PROJECT TITLE:** Introduction of Energy Efficiency and Renewable Energy Measures in Design, Construction and Operation of Social Housing and Community Equipment

**GEF AGENCIES:** IADB

**OTHER EXECUTING PARTNERS:** National Sustainable Environment and Development Secretariat. Cabinet of Ministers.  
-Urban Development and Housing Under Secretariat (UDHUS). Public Works Secretariat of the Ministry of Federal Planning, Public Investment and Services.  
- National Institute of Industrial Technology. Ministry of Industry

**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 compares energy use in standard social housing designs with those designed to reduce energy demand and increase the uptake of renewable energy. Training of occupiers will seek behavioral change, comprehensive monitoring will be undertaken by trained professionals, and the building sector will also receive related skills training. The proposal relates to GEF Strategic objectives CCM-1 and CCM-2. STAP welcomes this initiative, but encourages project proponents to consider the following issues in the development of the project.

Rationale: The present building code does not include energy efficiency measures so the proposed regulatory framework should be beneficial in the longer term. Regional climatic variations will be taken into account.

The specific technologies included under "renewable energy" appear to be solar heat for water, clothes drying and cooking, as well as passive solar space heating. Solar PV is not mentioned nor small wind or ground source heat pumps. No rationale for the above technologies selection is given, though adjustments due to regional differences in solar radiation are recognised but details were not provided. The choice of technologies for the project has to be justified at the CEO endorsement stage.

An indication of the incremental costs involved in the demonstration buildings for each region is helpful (20-28% of total costs), though it is assumed these will vary across the different regions and will become a part of the monitoring process, although this is not specified. What is the likely payback period for the investment? It is also not clear on what basis the "minimum", "medium" and "maximum" levels of savings resulting from adjusting the technology packages for buildings in different regions has been made. Was it based on the cost-effectiveness criteria? Are these decisions supported by the earlier research? Have the earlier tested technologies quoted been monitored at the commercial scale?

2. Climate change abatement: The claimed high replication potential will be hard to measure, particularly as the baseline already involves \$41M government investment to build and test energy efficient building designs.

3. Monitoring and evaluation: This component is well described, but it is not clear why 480 standard homes need to be monitored compared with 120 energy efficient designs. There will be wide variations in number of residents, user behaviour, etc. so high survey numbers are needed, but 480 seem to be excessive. Only 120 occupiers of the energy

efficient homes are expected to receive training. It would be interesting to also train 120 occupiers of standard homes in energy efficient management techniques. Then these two separate groups could be compared. Building stock turnover is slow, so the majority who will continue to live in standard house designs could possibly also make a significant reduction in energy demand, assuming they had the appropriate knowledge.

Metering of energy use is planned, but it is not clear whether indoor house temperatures will also be monitored. This is an important parameter and simple, cheap meter/dataloggers are available for this purpose. STAP recommends that project proponents take into account the proposed measures during further project preparation.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Consent</b>	STAP acknowledges that on scientific/technical grounds the concept has merit. However, STAP may state its views on the concept emphasising any issues that could be improved and the proponent is invited to approach STAP for advice at any time during the development of the project brief prior to submission for CEO endorsement.
<b>2. Minor revision required.</b>	STAP has identified specific scientific/technical suggestions or opportunities that should be discussed with the proponent as early as possible during development of the project brief. One or more options that remain open to STAP include: <ul style="list-style-type: none"> <li>(i) Opening a dialogue between STAP and the proponent to clarify issues</li> <li>(ii) Setting a review point during early stage project development and agreeing terms of reference for an independent expert to be appointed to conduct this review</li> </ul> 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.
<b>3. Major revision required</b>	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical omissions in the concept. If STAP provides this advisory response, a full explanation would also be provided. Normally, a STAP approved review will be mandatory prior to submission of the project brief for CEO endorsement. 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.