

# 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: April 19, 2011

Screener: Lev Neretin

Panel member validation by: Nijavalli H. Ravindranath  
Consultant(s):

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

**FULL SIZE PROJECT    GEF TRUST FUND**

**GEF PROJECT ID:** 4493

**PROJECT DURATION :** 4

**COUNTRIES :** China

**PROJECT TITLE:** China Renewable Energy Scaling-Up Program (CRESP) Phase II

**GEF AGENCIES:** World Bank

**OTHER EXECUTING PARTNERS:** National Energy Administration, P. R. China

**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 revision required**

### III. Further guidance from STAP

The CRESP phase "II" project aims at sustainable scale-up of commercial renewable energy development in China through cost reduction, efficiency improvement, and integration to grid. STAP commends the project proponents for critically analyzing lessons learned during the first phase of the project that informed specific interventions proposed for the second phase. STAP has the following comments and recommendations that should be taken into account during project preparation:

1. The project focuses on wind and biomass technologies. There is a large potential for several RE technologies. STAP recommends developing criteria for selecting RE technologies for intervention, based on Phase-I and other RE programmes implemented in China. A techno-economic analysis of various RE technologies, with respect to mitigation potential, cost-effectiveness, feasibility, etc. is suggested.
2. Given the scale of the project and past experience, a systematic assessment of barriers from the perspectives of different stakeholders and ranking of the barriers, based on a method such as AHP, would be desirable to prioritize the barriers to enable targeted interventions for the identified barriers.
3. While technological and policy interventions supporting on and off-grid wind energy are explained in the PIF and are the main focus of the proposed project, the PIF provides reference to small hydro as the least costly and high mitigation potential (77GW) RE technology with multiple benefits. Project interventions aimed at supporting small hydro are not proposed nor explained.
4. Similarly, there is a large potential for biomass energy in China and the project aims to develop a clear strategy and roadmap for biomass energy development for power, heat and gas applications as well as provide policy support for biomass manufacturing industry. Baseline and barrier analysis and mitigation potential for biomass energy in China justifying proposed interventions should be developed.
5. Why does this project focus only on grid-connected applications for RE? Was there any financial assessment made to focus on grid-connected approach to RE for power generation? Are there locations where decentralized applications or distributed or local-grids would be more beneficial? A modeling and optimization of grid-connected and stand-alone systems for decentralized application should be considered.
6. The approach adopted in this project seems to focus mainly on wind and to some extent biomass power. Given the scale of the project, it is suggested to analyze the locations for pilot projects and utilize an area-based approach for a

given area where all RE technologies are considered and an optimal mix of RE technologies is developed to minimize costs and maximize RE-based power generation.

<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>	<p>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:</p> <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> <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 revision required</b>	<p>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.</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>