STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: 30 September 2008  
Screener: Douglas Taylor, STAP Secretary  
Panel member validation by: N.H. Ravindranath

I. PIF Information (*Paste here from the PIF*)

**Full size project**  GEF Trust Fund

**GEF PROJECT ID:** 3786  **PROJECT DURATION:** 5 YRS

**GEF AGENCY PROJECT ID:**

**COUNTRY (IES):** Thailand

**PROJECT TITLE:** Industrial Energy Efficiency

**GEF AGENCY (IES):** UNIDO, (select), (select)

**OTHER EXECUTING PARTNER(S):** Department of Industrial Promotion (DIP); Department of Industrial Works (DIW); Thai Industrial Standards Institute (TISI); and Department of Alternative Energy Development and Efficiency (DEDE)

**GEF FOCAL AREA (S):** Climate Change,(select), (select)

**GEF-4 STRATEGIC PROGRAM(S):** CC-SP2 Industrial EE

**NAME OF PARENT PROGRAM/UMBRELLA PROJECT (if applicable):** REDUCING INDUSTRY’S CARBON FOOTPRINT IN SOUTH EAST ASIA THROUGH COMPLIANCE WITH A MANAGEMENT SYSTEM FOR ENERGY (ISO 50,000).

II. STAP Advisory Response (*see table below for explanation*)

1. Based on this PIF screening, STAP’s advisory response to the GEF Secretariat and GEF Agency(ies):
   
   Consent

III. Further guidance from STAP

STAP consents to the Industrial energy efficiency project of Thailand. The main goal of the project is to introduce National Energy management Standards, incorporating Industrial Energy System Optimisation. However, STAP has the following points and suggestions to be incorporated in the development of the full project brief.

1. **Technological Interventions:** IPCC (2007), has highlighted a number of potential technological interventions for reducing GHG emission in the industry sector mainly; Energy Management system, Efficient Motor System, Boilers, Furnaces, Lighting and Heating/ Ventilation/Air Conditioning and process Integration. There are a few questions regarding the technology, information and management packages.

   ➢ The scientific criteria and rationale for selecting industries is necessary since, there will be thousands types of small and medium industries. The rationale could be based on Cost-effectiveness ($/t/CO2) or CO2 emission reduction/$ of investment or CO2 intensity. There is a need to rank the industries based on a criteria of mitigation potential, cost effectiveness etc.

   ➢ What is the scientific rationale for focussing on biomass boilers (mitigation potentials or cost effectiveness)?

   ➢ Is the focus on CO2 or CO2+other GHGs

2. **Innovativeness:** Thailand is a very progressive country with the large no. of interventions already in place to improve Industrial energy efficiency and with a number of national, bilateral and multilateral projects aimed at improving Industrial energy efficiency. Further Thailand already has a large no. of policies, programs and incentives to promote Industrial energy efficiency. The critical incremental innovation mentioned is to promote system level Industrial energy efficiency compared to Component level energy efficiency improvement. There is a need to consider the costs and benefits of system and component level interventions. IPCC (2007), concludes that polices aimed at reducing barriers to adoption of cost-effective and low –GHG emission technologies can be effective. Thus, it is suggested to consider the cost-effectiveness aspect of the “**Component vs. System**” efficiency improvement
interventions. The financial viability of the intervention must drive the selection of technological interventions.

3. **Baseline and Control Groups:** Quantitative indicators of baselines levels of energy use and GHG emissions would be desirable. Will there be any set of control group of industries to compare and estimate the energy saving potential of technological interventions. Quantitative estimation of GHG emissions in the absence GEF project is necessary.

4. **Methods and Monitoring:** There is a need for selection and inclusion of methods for estimation and monitoring of energy savings and GHG emissions under baseline and project scenario conditions.

5. **Risks:** IPCC (2007), Risks associated with performance of new technologies or interventions could be considered, along with the risk associated with the financial viability of technologies.

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<tr>
<th>STAP advisory response</th>
<th>Brief explanation of advisory response and action proposed</th>
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<tbody>
<tr>
<td>1. Consent</td>
<td>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.</td>
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| 2. Minor revision required. | 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:  
(i) Opening a dialogue between STAP and the proponent to clarify issues  
(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  
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. |
| 3. Major revision required | 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. |