

Building Integrated Photovoltaic (BIPV) Project Mid-Term Evaluation 2008

Terms of Reference (TOR) for Project Evaluator

UNDP Malaysia seeks a qualified International project evaluator (consultant), for a full-time two-week period and will be stationed at UNDP Office Kuala Lumpur and Pusat Tenaga Malaysia in Bangi, Selangor.

1. INTRODUCTION

The Building Integrated Photovoltaic Technology Application (BIPV) Project is intended to induce long-term cost reduction of non-emitting GHG technology (i.e. the photovoltaic or PV) via integration of the PV technology within building designs and envelopes. It is aimed at creating a sustainable BIPV market in Malaysia that will generate widespread BIPV applications. Over the lifetime of the expected installed BIPV capacity from the project, the energy generated will avoid 65,100 tons of CO₂ emissions from the country's power sector in addition to contributing towards national energy policy objectives.

The principal objective of this project is to reduce the long-term cost of BIPV technology within the Malaysian market (GEF Operational No 7), which will subsequently lead to sustainable and widespread BIPV technology applications that will avoid greenhouse gas (GHG) emissions from the country's electricity sector. The project aims to catalyze BIPV technology acceptance among the public, policy makers, financiers and building industry, which will lead towards a sustainable BIPV market beyond the completion of the project. The project will specifically focus on the market development for BIPV technology, and building the national capacities on three major areas: (a) policy and education; (b) technical skill and market implementation; (c) technology development support.

Activities in the BIPV project are as below:

Component 1: BIPV information services, awareness and capacity building programs

Component 2: BIPV market enhancement and infrastructure development

Component 3: BIPV policies and financing mechanisms programs

Component 4: BIPV Industry Development and R&D enhancement program

2. OBJECTIVE OF THE EVALUATION

The purpose of the Mid-Term Evaluation is to **review, rate the performance** of the project from the start of the project implementation up to the present and **recommend possible** corrective actions if any. The review will include evaluating the

a) Progress in project implementation, measured against planned outputs set forth in the

Project Document/Inception Report with latest revision in accordance with rational budget allocation, and

- b) An assessment of the overall impact of the project to the country.
- c) and identify corrective measures, lessons learned and best practices which could be applied to future activities and other on-going/new projects.

3. ACTIVITIES

The scope of work for the consultancy will include, but not necessarily be limited to, the following activities:

a) Assessment of progress in project implementation

The evaluation will focus on such aspects as appropriateness and relevance of work plan, compliance with the work plan along side with budget allocation; timeliness of disbursements; procurement, quantity and quality of goods and services created; coordination among different project stakeholders. Any issue that has impeded or advanced the implementation of the project or any of its components, including actions taken and resolutions made should be highlighted. Activities to be continued by the executing agency shall also be recommended. The template below shall assist the consultant in reviewing the progress.

Review of Activities			
Activities	Planned	Actual	Action

Assessment of Budget Utilization			
Activities	As per ProDoc	Actual Expenditures	% of Project Budget

The following assessments shall be carried out:

- Capacity of risk management in overall project implementation and per component level i.e., whether the assumptions and risks are well recognized and mitigating measures are considered throughout implementation.
- Project design, i.e., whether the project design allowed for flexibility in responding to internal and external changes in the project environment.
- Implementation difficulties, i.e., whether difficulties and barriers, which were not expected at the start of the project, are identified and the approaches for the solutions are considered and implemented effectively.
- Project resources, i.e., whether the project components and activities were logically designed as to content and time frame commensurate with the human and financial resources that were made available.

b) Assessment of project outputs

For both the component and overall project levels, assess:

- Whether the project is implemented in the right direction to achieve the outcomes (i.e., based on the agreed work plan / annual target).
- The significance of the outcomes so far achieved for the country/region.
- Whether the project outputs are produced effectively, efficiently, and in a timely manner according to the time schedule.
- The quality and credibility of the outputs, as stipulated in the Project Document.
- The project's contributions to the targeted beneficiaries and their effectiveness.
- How effective and efficient the project funds are utilized, and how the expenditures are monitored.
- The credibility of the data used in the project and reliance of the numerical outputs.
- The monitoring and evaluation of the project consultants' work.
- The quality of the internal monitoring system results.

Outputs of the BIPV are as below:

Overall Project Goals and Objectives

- a) The amount of annual GHG emissions avoided from fossil fuel-based power generation – in tons CO₂ of the cumulative installed PV capacity
- b) Project Purpose: The overall capacity (technical, policy, planning, institutional, fiscal, financial) both in government and the private sectors, to develop, design and make use of the BIPV energy potential and to develop local industry is significantly improved.
- c) % of increased installed BIPV capacity against baseline (inclusive of awarded Suria)
- d) % of BIPV unit cost reduction against baseline
- e) No. of National BIPV program integrated into the 10th Malaysian Plan

Objective 1: BIPV Information Services, Awareness and Capacity Building Programs

- 1.1. Integrated information and awareness building program on BIPV
- 1.2. National BIPV database
- 1.3. BIPV training courses
- 1.4. Malaysian PV Industry Association
- 1.5. Quality control programs for local industry
- 1.6. Capacity building and awareness programs for policy makers and financial sector
- 1.7. International BIPV event for decision makers
- 1.8. Disseminate information and lessons learn to regional ASEAN countries
- 1.9. Impact assessment of BIPV technology development

Objective 2: BIPV Market Enhancement and Infrastructure Development Program

- 2.1. Standards and guidelines development
- 2.2. Review and final design of the planned BIPV showcases
- 2.3. Hardware installation and operation of the BIPV showcases

- 2.4. Evaluation of demonstration sites
- 2.5. Design and evaluation of technical and commercial viability for the demonstration projects
- 2.6. BIPV demonstration implementation and operation at government and private buildings
- 2.7. Review and promotion of national PV program "Suria 1000"
- 2.8. Implementation and operation of "Suria 1000"
- 2.9. Monitoring and evaluation of BIPV projects
- 2.10. Dissemination and promotion of demonstration program results
- 2.11. Sustainable follow-up program design

Objective 3: BIPV Policies and Financing Mechanisms Program

- 3.1. Techno-economic analysis for grid-connected BIPV
- 3.2. Design and implementation of government incentives to utility and manufacturing industry
- 3.3. Analysis on existing and new financial mechanism and fiscal incentives
- 3.4. Implementation of a fiscal and financial framework for a sustainable follow-up program
- 3.5. Study on past experience and impact on international regulatory schemes
- 3.6. Review and integration of BIPV in existing regulatory schemes
- 3.7. Implementation of an institutional and policy framework for a sustainable follow-up program
- 3.8. Policy and financial framework implementation, monitoring and impact assessment
- 3.9. Government liaison and dissemination of results

Objective 4: BIPV Industry Development and Technology Localization Program

- 4.1. Activities on cost reduction of local BIPV products and system optimization for local condition
- 4.2. International collaboration and transfer technology program
- 4.3. Upgrading local industry capabilities
- 4.4. Establishment of BIPV Quality Control Centre

For each output, compare and apply the following rating system concerning outputs, which reflects the degree to which an output's targets have been met:

- **highly satisfactory** (HS), i.e., output/indicator fully on track (progressing fully as planned or beyond plan);
- **satisfactory** (S), i.e., output/indicator mostly on track (progressing mostly as planned);
- **marginally satisfactory** (MS), i.e., output/indicator partially on track (progressing behind schedule); and,
- **unsatisfactory** (U), i.e., output/indicator substantially off track (progressing substantially off-schedule).

The rating system serves as a proxy assessment of how successful the Project has been in achieving its outputs. The four ratings are meant to reflect the degree of achievement of outputs by comparing with the baseline (i.e., the non-existence of the output) with the target (i.e. the production of the output).

c) Assessment of project impact

- Capacity Development - The effects of the project activities on strengthening the capacities of the Pusat Tenaga Malaysia (PTM), MEWC and other related stakeholders and the PV industries.
- Sustainability - Efforts undertaken to ensure that the results of successful projects are sustained beyond the period of GEF financing will be evaluated, as well as the project's existing mechanisms. It is imperative to confirm whether the policy recommended by the projects are well embedded in the current national policies or future policies.
- Leverage - The project's effectiveness in leveraging local or other international resources / funds that would influence larger projects or broader policies to support its goal will be assessed.
- Awareness Raising - The Project's contribution to raise awareness about the use of PV and renewable energy as a whole, should be examined, as well as the project's contribution to promote policy or advocacy activities and collaboration among stakeholders.
- Lessons Learned and Best Practices - Both good and bad experiences and lessons learned from the implementation of the project thus far will be identified and evaluated. There shall be a document the integration and application of experience from the various components of the project (holistic approach).
- Operational recommendations- Recommendations will be developed to help the executing agency and project partners improve its operational and support activities in implementing such projects. The recommendations would aim to:
 - I. Help executing agency and partners improve the project implementation and to address operational lapses and gaps;
 - II. Strengthen the work of the project management team and Project Steering/Advisory Committee/s and how the activities shall sustain under the government's initiatives;
 - III. Enable UNDP /GEF to provide effective support in future ;
 - IV. Improve ways to draw, share and document lessons learned and best practices experience to the various stakeholders; and
 - V. Provide effective operational guidance for effective implementation of the remaining part of the project and onwards for future project prospect/s.

4. EXPECTED OUTPUTS AND REPORTING REQUIREMENTS

The evaluation report shall highlight important observations, analysis of information and key conclusions including its recommendation/s. As a guideline, the format of the report shall consist as below:

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| <ol style="list-style-type: none">1. Title Page2. List of acronyms and abbreviations3. Table of contents, including list of annexes4. Executive Summary (max 3 pages)5. Introduction, Scope, and Purpose of the evaluation6. Methodology including description of the work conducted and Key questions7. Findings and Observation (at component level, at project level, project targets, |
|---|

- capacity building)
8. Recommendations for the remaining part of the project including lessons, generalizations, alternatives for sustainability of the activities
 9. Budget Utilization (% against actual, component level and project level)
 10. Conclusion (max 3 pages)
 11. Annexes

The draft Evaluation Report that will be produced under this assignment must be available on or before **30 Sep 2008**. The report shall be in Word and Adobe Acrobat format and must have no restriction in access. The Consultant is free to use what he/she thinks is the most appropriate structure of the Evaluation Report.

5. METHODOLOGY

The evaluators will review relevant project documents and reports related and conduct focused individual/group discussions on topics and issues that relate to the implementation and impact of the project. The evaluators are expected to become well versed as to the objectives, historical developments, institutional and management mechanisms and project activities. More specifically, the evaluation will be based on the following sources of information:

- I. **Review of documents** related to the project such as project document, quarterly and annual progress reports, other activity/component specific reports and evaluation. as described.
- II. **Structured interview** with knowledgeable parties, i.e., NPD, Project Staff members, Sub-Contractors, International/National Consultants, UNDP, members of the National Steering/Advisory Committee/s, Project Beneficiaries or grantees, etc.
- III. **Site visits** to specific projects, if feasible. The site visits should be discussed with the NPL and the UNDP Country Office.

Key documents to be reviewed are as below:

- GEF-approved BIPV Project Brief;
- UNDP/GEF BIPV Project Document;
- Inception Report
- All output reports and documents produced under BIPV
- Minutes of Project Steering Committee Meetings and National Steering Committee meetings.
- Amendments to the inception report (if any)
- Latest Project Implementation Report PIR (2007)
- Latest NEX audit reports or any other audit reports
- Past consultancies' assignments and summary of the results
- Quarterly reports
- Pictures of equipment, installations and sites if any
- Newspaper/publication articles

The evaluation team shall meet and interview the following:

- National Project Director
- National Project Leader
- Finance Officer
- Component Managers (all)
- Relevant officers from the executing agency, (Ministry of Energy Water and Communication (MEWC))
- Economic Planning Unit (EPU) officers
- Representative from Energy Commission
- Representative from industrial association (MPIA)
- Representative from the academia
- Selected members of the NSC meeting
- Consultants
- Participating industries
- Installed PV facilities
- Equipment suppliers
- Other project partners

The evaluator will conduct an opening meeting with the NPD and relevant executing agency staff to be followed by an "exit" interview with UNDP CO to discuss the findings of the assessment prior to the submission of the final report.

6. EXPERTISE REQUIRED

The evaluation shall be carried out by an **International Consultant**. A local consultant may be engaged if necessary. The consultant(s) shall have the necessary expertise in but not limited to

- Project evaluations especially in UN/UNDP projects
- Familiar with project management framework
- Have involved in PV industries or similar GEF OP7 projects
- Have sound knowledge in policy and project financing
- Where necessary, the local consultant shall assist the international consultant in providing information on country specific issues such as local laws, institutional arrangements and communications.
- Have tertiary education in engineering, science, business, economics or any development qualification. Post-graduate or with relevant professional qualification is preferred.
- More than 10 years of working experience in the areas addressed with a good knowledge of the state-of-the-art approaches and international best practices;
- Prior evaluation experience of similar projects in UNDP programme countries and familiarity with the specific **UNDP GEF monitoring and evaluation** requirements;
- Fluency in English

7. COMMISSIONING PROCESS AND COMMUNICATION

The commissioning tasks shall be conducted according to standard UNDP GEF Monitoring and Evaluation policies with the advice from UNDP/GEF Regional Centre Bangkok as per following guidelines:

- Full compliance to the terms of reference (TOR) above in consultation with key partners and stakeholders.
- Selection of the evaluator(s) on a competitive basis and through a transparent process in line with UNDP's procurement procedure;
- Brief the evaluator(s) on the expectations for the evaluation and on the code of conduct ;
- Review the first draft of the [evaluation report](#) and give relevant stakeholders a chance to provide feed back on factual errors or omissions;
- Disseminate the main evaluation findings, conclusions and recommendations to audiences internal and external to UNDP

More info at

<http://www.gefweb.org/MonitoringandEvaluation/MEAbout/meabout.html>

http://www.undp.org/gef/undp-gef_monitoring_evaluation/undp-gef_monitoring_evaluation.html

<http://www.mbipv.net.my/>

Kindly send application and forward any communication to:
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Deadline of application: 10 Aug 2008. Detailed work plan and format of the report will be finalized once the person is confirmed. UNDP Malaysia has the right to change any of the above if necessary.