Recommendations to the Project Team and Lessons Learnt

**Recommendation 1: Revision of the Planning Matrix and Budgeting**

In Appendix 1, the MTR team proposes an improved Logical Framework/Planning Matrix and an adjustment to some key performance indexes (KPIs) (or project targets) with the aim of making the targets realistic and hopefully achievable. Major adjustments are related to Components 1, 2 and 5.

The proposed new budget breakdown structure is presented in Appendix 2 in line with the revised Planning Matrix. The whole project framework and project objectives remain unchanged. Major adjustments to the Planning Matrix are related to Component 1 (Institutional Capacity Development), Component 3 (EE Financing) and Component 5 (Building EE Demonstration). Table 4 is a summary of the revised budget as opposed to the current approved budget (Prodoc). Table 4 encompasses the budget components related to M&E (Component 6) and Management (Component 7). Budget cuts in all components are related to international and local consultants as the project needs to allocate more for component 5 for purchasing of monitoring equipment. The budget increase in Component 5 is allocated to procurement and co-financing in the public sector.

**Recommendation 2: Refocus the key Component 1 outputs**

The emphasis must be shifted as a priority to the development and roll-out of the National Energy Consumption Monitoring System and Data Analysis, that is to say an integrated Monitoring System (IMS) in the building sector. As per the Project Design, the BSEEP supported different information systems. The ongoing work under the Building Consumption Information System (BCIS) of the Malaysia Green Technology Corporation (MGTC) will be linked with support from BSEEP. BSEEP will then take this further up by establishing real-time data from demonstration projects. The BCIS (with IMS) will be the heart of the Central Building EE database (CBEED) which the project is pursuing. This recommendation relies on existing databases and information systems developed by different ministries with the aim of creating a national web-based IMS. The Integrated IMS should be designed by technical experts.

**Recommendation 3: Put the emphasis of Component 3 EE Financial Mechanism Capacity Improvements on the ESCO business model.**

MTR evaluators recommend that the project establishes provision of intensive support to the ESCO business model and the development of the Energy Performance Contract modality. Such a recommendation is in line with the current needs. The MTR team is confident that such a refocusing activity is more appropriate in 2014 in terms of outputs. By decision ( a directive letter by MEGTW on utilizing EPC concept for government buildings on September 2013), the KeTTHA (Ministry of Energy, Green Technology & Water) stipulates that EE investments in the public sector should proceed according to the Energy Performance Contract (EPC) modality through the existing ESCO network in Malaysia. As explained, in meeting the objectives of this component, the project can not depend primarily on the financial institutions as they are mainly receiving part. Experience from the Green Technology Financing Scheme (GTFS) shows that the banks and financial institutions are generally supportive on financing RE and EE projects. However, constraints come from the quality of submission (in meeting the banks’ requirement) and the methodology of applying which mainly are the issues of the submitters. Hence, by emphasizing on the performance modality, the risks undertaken of the projects will be linked the project’s guaranteed return ( and the capability of the applicants (the ESCOs)) and rather than fully relying on the EE projects to be financed which are not curtained in some way. Hence, The MTR team recommends to focus on Activity 3.5 (ESCO) with the aim of improving the capacity of ESCOs in the financial analysis of EE measures, the preparation of bankable documents and providing awareness activities to commercial banks on EE project financing in the public and private sector through the ESCO business model and EPC modality.

**Recommendation 4: Revised Component 5 budget to include purchase of monitoring systems and inclusion of best practices in energy management.**

The aim of Project Component 5 should be to provide decision makers with an evidence-based demonstration of the impact and cost effectiveness of EE measures in the building sector. It is therefore recommended that BSEEP looks into provision of providing efficient monitoring systems to be included in the demonstration projects. As such, budget for Component 5 shall be revised and focuses into 3 parts mainly 1) continuing the originally intended objectives, 2) purchase of IMT equipment and 3) inclusion of best practices in energy management in buildings as one demonstration projects. 3 major demonstration activities:

- EE Investment Cost Effectiveness: These activities basically suggest BSEEP to continue completing the originally intended objectives which is to demonstratethe cost effectiveness of the selected EE measures in 10-12 public and privateuildings, including one or two hospitals whereone or two of those projects should be implemented through the ESCO business model under the EPC modality. Case studies publication and other information materials should be prepared and disseminated.

- Integrated Monitoring Technology (IMT): IMT refers here means providing real time data monitoring system (via web-based internet protocol) as part of demonstration project. It is anticipated that demonstration of energy consumption monitoring technology and data logging systems to be about 20 to 30 in quantity(to be validated) as representative of various types of buildings (public and private).This includes, among other things, smart meters and data gathering/logging equipment (distance reading). The cost of EE investment shall remain with the hosts / building owners but the IMT equipment (hardware and software) shall come from BSEEP as part of the monitoring activities. BSEEP team will then be able to monitor and provide substantial analysis for data monitoring and effective policy formulation. The BSEEP should also support the development and implementation of analytical tools as well as a web-based information sharing system.

- Impact of Best Practices in Energy Management: Demonstration of the impact of the implementation of best practices and systematic energy management guidelines in target buildings where emphasis is given to include energy management in buildings.

The BSEEP must consider a significant investment in equipment, rather than 10 k$ as planned in the Project Document and a budget provision should be dedicated to TA (local consultant) to achieve those 3 activities as planned. Let’s recall that the budget provision for Component 5 is 1,735,000$ and at mid-term only 7% (128k$) of that budget provision has been spent. The recommended budget provision is now USD 1,973,249 to be split more or less equally between TA and procurement.

**Recommendation 5: Extend the network of implementation partners**

The MTR evaluators were in view that at the current situation, many key stakeholders were not consulted and invited during key project decisions. As such, MTR evaluators recommend that the project extend the implementation partners’ network (institutional arrangements) in a more practical way than previously. Such an involvement must be intensive and practical (not limited to ‘’dialogue’’ or meetings only at the end of the outputs) especially in regard to Component 1 and Component 5.

Among others, key staleholders to be included are

Other JKR departments ( Mechanical/Electrical/Maintenance department) Mechanical, Electrical and the Maintenance departments have many ongoing, planned and completed experience on EE hence, any synergy is expected. A joint pro-active demonstration project committee (DPC) or part of the Project Review Committee meeting must be set up with the aim of proceeding with project screening, project selection and implementation.

Company-based Experts (outsourcing) should manage to design and implement about 10 demo projects.

Sustainable Energy Development Authority (SEDA) – SEDA has conducted many relevant building initiatives on EE (i.e. Low Carbon building guidelines and the monitoring of the SAVE’s project), It is expected BSEEP to continue discussion on the relevant framework for joint cooperation. MGTC for the National Monitoring and Data Analysis System development and implementation especially related to BCIS development.

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 **Recommendation 6: Filling up the vacant positions**

This is an urgent requirement to be quickly resolved by the end of the year with the selection and hiring of 4 Component Managers and suggested as follows:

- Component 1: to be undertaken by the full-time Component Manager cum Consultant;

- Component 2: to be undertaken by part-time Component Manager cum Consultant

- Component 3: to be undertaken jointly by part-time CTAand the full time Project Executive

- Component 4: to be undertaken by the Part-time Component Manager cum Consultant ,

- Component 5: to be undertaken by a Full-time Component Manager cum Consultant.

Out of the positions above, the highest priority will be the Component 3 and Component 5 and followed by the Component 4. MTR evaluators recommend several positions to be in full time basis due to the urgency and comprehensive nature of the activities. The non-full time positions can be generally appointed on case by case basis.

**Recommendation 7: Recruitment of the Chief Technical Advisor (CTA)**

MTR evaluators recommend BSEEP to proceed with the selection and contracting procedure of a part-time international CTA to support the PM and Component Managers during 2014 and 2015 period. In addition, the CTA should be partly responsible for Component 3. The CTA position should be contracted by early December with the aim, among others, of providing input for the preparation of the AWP 2014.

With the positions filled up, it is expected that the IP (JKR CAST (Energy and Environment Branch)) will strengthen its capacity in implementing BSEEP effectively and timely. Besides having a dedicated team on the project’s activities, the team will also assist CAST by leading effective project monitoring system especially related to physical project implementation in Component5. UNDP CO will continue providing support to BSEEP and JKR team in adherence to the UNDP/GEF templates.

 **Recommendation 8: Project Duration Extension**

The project should end on December 2016 rather than 2015 if the BSEEP is willing to proceed with the needed improvements. The duration extension is mainly required to deliver outputs related to Component 1 and Component 5.

 **Recommendation 9: Improvement to Progress and Planning Reports**

MTR team recommends to proceed with a drastic improvement of Quarterly and Annual Progress Reports and the AWPs as well as activity budgeting follow-ups and reporting. It is noted that PIR is in compliance of the UNDP GEF requirement. Writing of the report shall be enhanced for quality reporting. This includes strict compliance in reporting with the UNDP Annual Project Report and the Annual Work Plan format. The full team on board (recommendation no6 and no7) will allow BSEEP to drill clearly on specific issues and provide quality reporting contents as required.

 **Recommendation 10: Timely scheduling of the NSC and PRC Meetings**

BSEEP was not in compliance with the agreed schedule for the NSC and the PRC despite the various reminders by UNDP CO. It is now suggested that the project to schedule and hold both meeting timely (NSC to be organized twice yearly and the PRC four times yearly). The National Steering Committee (NSC) must mainly provide guidance and direction to the project team at the strategic level and approve the AWPs. It is also expected that NSC to seriously review the project implementation arrangement and advice BSEEP team in adhering to the agreed project progress including budget utilization. The BSEEP should also invite the JKR relevant sections, MGTC, SEDA and Energy Commission to become involved as NSC members because they are key players in the field of EE and, more importantly, because in the future the MGTC and EC will play a very active role in regards to the National Monitoring System (Component 1) and a few demonstration projects (Component 5) respectively.

 Timely scheduling of the PRC and NSC meetings will allow BSEEP to receive proper guidance and act swiftly in case of any delays and problems faced by the team. As a result, JKR CAST will increase its project management capacity as required in the project document. Based on this recommendation, the JKR CAST will be appropriately supported by capable key technical partners. To this end, Recommendation 5 highlights key activities where these technical partners should be actively involved.

**BSEEP MTR - Lessons Learnt**

- **Timely Actions:** Despite the UNDP's constant reminders and even with the lagging issues highlighted and discussed in the Project Review Committee (PRC) meetings and the National Steering Committee (NSC) meetings, JKR as the Implementing Partner, has not been able to implement the project in a timely manner and according to the agreed National Implementation Modality (NIM). This led the UNDP CO to commission the Rapid Evaluation exercise for EPU in May 2013 to seek immediate solutions to the long standing problems. The Government of Malaysia along with UNDP CO should have taken action earlier to improve the project’s implementation, reporting and project management. There is no acceptable reason why the project did not replace the previous Project Manager when she left in 2012 (which meant no Project Manager for a period of 1.5 year) although JKR had confirmed that one of their senior staff members would resume the responsibility effective immediately, which did not materialize, and the same goes for Component Managers and the CTA.

- **Project Design Weaknesses:** The weaknesses were not highlighted and consequently not appropriately addressed at the Inception Stage, especially in regard to Component 3 (EE Financing) and Component 5 (EE Demonstration). On the other hand, it is important to note that at the stage of the project design, numerous consultation activities with stakeholders, aside from the LFA workshop, were conducted in 2010 to discuss the issues and concerns regarding the application of EE technologies in the building sector. The LFA workshop resulted in proposed activities to be carried out under the BSEEP, including project implementation and management arrangements. During the MTR, it became clear that there is indeed a project design problem related to Component 3 and Component 5 in spite of the valuable efforts and consultations carried out at the stage of the project preparation in 2010. See details at paragraph 3.1.3

- **Mobilization of Capable Team Members:** A project, especially a full-sized project, cannot be carried out and objectives appropriately achieved without the full involvement of key dedicated team members. A project cannot reach its targets if nobody is responsible for implementing activities and sub-activities. This full-sized project is adequately budget provisioned to hire capable team members.

- **The NIM (or NEX) Protocol is not a Burden:** While the project follows NEX/NIM modality (where the project activities is implemented by the Government’s appointed agency including recruiting and procuring of goods and consultants),the bureaucracy faced by CAST (in following the necessary Government’s procedure) should not be regarded as the reason for delays in project implementation. . If there are some outstanding situations when problems occur, the Implementing Partner should address the issues and request the UNDP’s support services quickly. It was pointed out that UNDP has provided recruitment for the National Project Manager, Finance Assistant, Project Executive and The Chief Technical Advisor accordingly as stated in the Management Arrangement section. The MTR team met with most of the key stakeholders and JKR high level managers. All knew about the project's lack of performance. To a certain extent, those stakeholders kept their distance and did not intensively support the project possibly because of its questionable performance. As a result nobody took action.