1.0. INTRODUCTION
A proper and comprehensive project funding structure is a critical prerequisite to ensure success in implementing any project. Proper project funding will not only prevent unnecessary time and cost overrun and ensure smooth implementation of the project but it will also ensure the attainment of the forecasted project returns. Much have been said on the virtues of Islamic financing in project funding as an alternative to the Western conventional financing that is seen as exploitive and unfair. This paper compares the two concepts of Western and Islamic funding and illustrates with a case study on the financing of a Biomass Power Plant using Islamic Funds. It shows that the latter, although seemingly equitable from a computational point of view, is exploitative from the practical sense and has thus failed to achieve the basic promise it was originally intended [1].

2.0 CONVENTIONAL PROJECT FINANCING
Conventional project financing would consider project funding on the basis of Balance Sheet Financing. In Balance Sheet Financing banks would evaluate the project primarily (but not solely) on the cashflow generated in its implementation. The following Terms and Conditions were imposed:
1. Equity contribution of a minimum of 30% of the total project cost;
2. Interest rate applicable is 1.5% spread above the current Base Lending Rate (BLR) of 6.0%;
3. Loan tenure is for a period of 10 years with 2 years moratorium on repayment of principal but interest bearing.

The loan would require the following securities:
1. Debenture of all fixed and floating assets (present and future);
2. Specific debenture on asset financed.
3. Assignments of all rights and benefits including insurance, Renewable Energy Power Purchase Agreement, Fuel Supply Agreement etc;
4. Charge on the project land;
5. Corporate guarantees of holding company and Joint and Several Guarantee (JSG) of Directors and Shareholders.

The major flaw in this type of project funding is obviously the large equity required in particular for greenfield projects where it is deemed as of a higher risk. In essence, these (conventional) funding structures would impose unnecessary burden especially to small entrepreneurs that has no financial strength in raising equity for project funding, invariably frustrating the effort. This is particularly true in marginal projects such as in renewable energies. The alternative to conventional banking is Islamic banking. Islamic financing is much more lender-friendly than the conventional funding as it was based on the syariah tenets that it would neither be prohibitive nor exploitative.

3.0 ISLAMIC PROJECT FINANCING
Malaysia has introduced Islamic banking since the 1970s as an alternative to the imposing conventional banking. The underlying principles and philosophies of Islamic banking was not new as it was based on the Holy Quran and the Sunnah of the Prophet Muhammad (s.a.w) that in essence prohibit riba or interest that is prohibitive and exploitative [2]. Imam Al-Ghazali commented that "all these commodities need a mediator to judge their exact value...Allah s.w.t. has therefore created dirham (money) as judges and mediator....". Islamic finance is built on the principles of exchange than credit worthiness and the ability to repay loans. This means that a system based on Islamic principles will neither punish people who need access to capital for not having it already nor allow them the burden of debt [3]. So Islamic banking dispenses with the interest element and put in place a profit sharing element to recover the opportunity cost of funds.

In Malaysia, separate Islamic legislation and banking regulations existed side-by-side with those for the conventional banking systems. The legal basis for the establishment of Islamic banks was the Islamic Banking Act (IBA), 1983 [4]. Islamic banking has an enormous potential globally as it has migrated from trade financing to project financing. The banking components of the financial structure, the institutions, the legal systems, the regulatory and supervisory framework and the Syariah infrastructure (Syariah Advisory Council) are all firmly in place to provide the foundations on which future sustainable progress and expansion of Islamic banking can be realised. The establishment of the Islamic Financial Services Board (IFSB) 2002 [5], further regulate internationalisation of Islamic funds in particular for project financing.

To date there are more than 40 Islamic financial products and services
using various concepts (Securities Commission, 2001). The syariah concepts and principles that were used for the purpose of structuring Islamic Private Debt Securities (IPDS) for the biomass power project are: Al-Mudarabah (debt portion) and Al-Musyarakah (equity funding). Bai’ Al-Istijrar (working capital financing) on the other hand is used for the financing of supply of biomass feedstock.

4.0. ISLAMIC FUNDING STRUCTURE

The Islamic Funding Structure designed for the financing of the Biomass Power Plant is shown in the figure below. They are as follows:

- Bankers – consortium of Bankers headed by a Lead Banker who is responsible to the consortium of bankers and investors. The Lead Banker would manage the funds on behalf of the consortium members.
- Public Accountant – Monitoring Agent to keep track of the performance
- Asset Manager – monitor and manage all movements of Assets and Cash in the process.
- Technical – these are the group of professionals responsible for the technical and engineering aspects of the power plant development and its eventual operation and maintenance. They comprise the Business Development Consultant responsible for the project take-off and act as “owner’s engineers” during its eventual implementation. The Civil and Structural and Mechanical and Electrical engineers would be responsible in implementing the construction of the project.

Other parties involved are as follows:

- Capital Group – Advisory and be the Arranger for raising of the Funds.
- Rating Agency – rating of the bond.
- Underwriters/Arranger – Raising Funds and Underwriting
- Syariah Advisory Council – advises on the rule, law and compliance to the syariah guidelines.
- Legal – execution of legal documentations and liaison with the Syariah lawyers.

The drawdown of the funds was made in a pre-determined progress schedule for a lump-sum EPCC contract. It is imperative that there is no variation works that would invariably incur both time and cost overruns. Therefore, the role of the project manager in determining the implementation critical paths and its remedies is crucial.

5.0. FINANCIAL PACKAGE

The financial structure for the Lukut Biomass Power Plant is divided into three parts as follows:

![Diagram of Approval and drawdown structure]

Figure 1: Approval and drawdown structure
Part I  Real Equity  RM 1.0 million  
Part II  Equity Funding  RM 9.0 million  
Part III  Debt Funding  RM 30.0 million  
Total Project Fund  RM 40.0 million

Real Equity is the amount that the project promoter has to come out with. It is considered as equity together with the Part II Equity Funding but bears no interest.

The Equity Funding portion of the project cost is referred to as the Al-Musyarakah fund. The principal terms and conditions of this fund are as follows:

Capital contribution:
(i) RE Developer – RM 1.0 million  
(ii) Musyarakah Financiers – RM 9.0 million

Together this equity portion constitutes 30% of the total project cost.

Profit Sharing Ratio:
This is in the ratio of 10:90 between RE Developer and the Musyarakah Financiers based on Profit Before Tax and Depreciation and targeted to deliver an IRR of 19.2% for the Musyarakah Financiers.

Musyarakah Period: 10 years.

Return of Musyarakah Capital:
This is done via Musyarakah Certificates held by the Musyarakah Financiers redeemable as follows:
• year 09 – RM 4.5 million  
• year 10 – RM 4.5 million

This is the debt portion of the project funding. It constitutes 70% of the total project cost. The principal terms and conditions of this fund are as follows:

Type of Facility: Al-Bai’ Bithaman Ajil (ABBA).

Financier Purchase Price:
RM 30.0 million

Tenure: 10 years
The above instalment schedule provides an IRR of 10.25%

Securities:
1. assignments of proceeds from the sale of electricity to TNB under the REPPA.  
2. first fixed legal charge on the equipment and building.  
3. assignments of all insurances/takaful and the bank to be named as beneficiaries.  
4. assignment of all contractual benefits.  
5. JSG of Directors and Shareholders.

6.0 ANALYSIS OF CASHFLOW AND CONCLUSION
From a computational point of view, the scheme of repayment seems reasonable but on careful analysis the flaw in the offer makes it non-tenable to the project promoters resulting in a failure of the scheme. For example:

• The IRR of the project was only 4% but IRR of Musyarakah Financier for the Equity Financing was 19.2%. The IRR for the Al-Bai Bithaman Ajil for the debt is 10.2%. These are very unproportionate and unbalance division of return between the project promoters and the funders making the scheme exploitative.
• The payback period to the Musyarakah Financiers is 2 years. Therefore the balance of 8 years is pure profit. This is grossly unfair.
• At the end of the loan tenure the Musyarakah Financier would collect their loan of RM 9.0 million from the project promoters. During this period, however, the proceed to the promoters was only RM 5.0 mil (RM 0.5 mil * 10 years) whereas the Musyarakah Financier RM 45 mil (RM 4.5 mil * 10 years). So from which source does the project promoter have to repay the equity fund? If this payment is not payable then the profit distribution arrangement continues (roll over). This was rather exorbitant.
• In addition, the debt portion or Mudarabah also contains a "profit" element. Therefore "profit" is levied at both Musyarakah and Mudarabah financings. For a fairer profit distribution the structure should have been along the following:

• no repayment of equity principal
• 50/50 profit distribution during the tenure of the debt (i.e. 10 years)
• Repayment of debt should not be above conventional funding.

In conclusion, Islamic funding for project financing, as currently being practised in Malaysia, does not fulfil the very basic premise of Islamic financing for which it was founded. Islamic financing of projects, such as the one illustrated above, need to be re-engineered to conform to the basic tenets of the Islamic spirit. It was suppose to be unexploitative, ummah-friendly and sincere in assisting the ummah to propagate Islamic wealth-building.

REFERENCES