

Abstract for IERE TIS-Asia Meeting 2013 (Session S-3-1 16th Jan 2013)

Renewable Energy: Perspectives & Current Development in Malaysia

¹ Loo Kok Seng

² Ahmad Lutfi Mohayiddin

Tenaga Nasional Berhad, Kuala Lumpur, Malaysia

Keywords : renewable energy, feed-in-tariff, green, solar, biomass, mini-hydro

Abstract

Malaysia's quest for sustainable development has been embedded in its National Energy Policy (1979) which outlines (3) three principle objectives to manage the development of the country's energy sector:

- Supply Objective – to ensure adequate, secure and cost-effective supply through the development of both non-renewable and renewable energy sources as well as diversifying the sources of energy;
- Utilisation Objective - to encourage efficient utilisation of energy and discourage wasteful and non-productive energy use; and
- Environmental – to reduce the negative impact on the environment resulting from the production, transportation, conversion and consumption of energy

A resource rich country, the nation has been relying heavily on fossil fuels for electricity generation. In 1981, the Four-Fuel Policy was introduced with the aim of striking the balance between the utilisation of oil, gas, coal and hydro for electricity production. In 2001, renewable energy (RE) has been included as the fifth fuel in its Fifth Fuel Policy. Since then, the Government has set ambitious target for RE installation capacity in its 5-year rolling plan (Malaysia Plan), but the major hurdle is still the economic attractiveness of RE as compared to fossil fuels which are currently subsidised.

Growing electricity demand as the result of Malaysia's rapid economic growth, coupled with the depletion of indigenous natural gas resources has led to the increasing reliance on imported coal hence posing energy security issue over the long term. Government has also put a plan to gradually rationalise its fossil fuel subsidy in view of the continuing upward trend in the market prices of fuel. In addition, the Government's pledge for emission reduction would also result in RE becoming more attractive as an option for a sustainable future of the nation.

The Feed-in-Tariff (FiT) mechanism which was implemented since December 2011 was the latest intervention by the Government to provide incentives for people to embark on RE generation projects. As the main electricity utility in Malaysia, TNB supports the the FiT mechanism by signing the RE Power Purchase Agreements with FiT Approval Holders (i.e. RE Developers) as well as playing the role as the collecting agent for the RE Fund from consumers' electricity tariff. The FiT mechanism is very well-received among the private sectors and individuals and it is hoped that Malaysia's target of 985 MW of RE installations by 2015 (contributing to about 5.5% of the electricity generation mix) will be materialised.