The Pearl of Andaman

By: Engr. Lee Wei Koon

Promthep Cape station

Lying in the Andaman Sea off the southern west coast of Thailand, Phuket Island, otherwise known as the Pearl of Andaman, is a tropical paradise for the vacationers who seek to breakaway from the bustling city life. of city. At the southern tip of the island is the Promthep Cape, a famous tourist's attraction, offering spectacular sunset view, plus a gigantic three-bladed wind turbine generator (WTG) – if you could call it.

The 24m-high horizontal axis WTG has a capacity of 150kW and is the largest in the country. It is built by the Electricity Generation Authority of Thailand (EGAT) to demonstrate the utilisation of alternative and renewable energy (RE). The WTG capitalises on the strong south-west wind which ranges between 4.9 to 6.1 m/s. Since 1996, it is connected to the local distribution grid with an annual output of 200,000 kWh. In addition, there are two other 10kW horizontal axis WTGs used primarily for battery charging since 1993.

After 10 years of successful operation, EGAT has recently proposed to build 3 new WTG measuring 50m high with a capacity of 750kW and costing 40 million Baht (approximately RM4million each) at the same location. The structure only occupies a minimal land area of 10m by 10m but the height has turn out to be an issue due to a new ruling within the province which ban structures higher than 8m at the coast front. To date, the project is yet to take off, pending approval from the relevant authorities.

In Malaysia, we are currently emphasizing on biomass and solar power in the 5th Fuel Strategy. With the pressing high crude oil price, we look

The author at the WTG site

forward to see major engineering breakthrough in the research and development of alternative RE for the benefit of the nation. ■