

Food for Thought

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Malaysia Must Not 'Kowtow' to Green Lies

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MALAYSIA MUST NOT 'KOWTOW' TO GREEN LIES

Climate change has set a new stage for the world to display a new breed of technologies that are claimed to be environmentally friendly or more commonly as 'green'. Do these products actually live up to their claims or consumers in Malaysia are being shortchanged? Are we forced to 'kowtow' to green lies?

Association of Water and Energy Research Malaysia (AWER) has concluded a study for lighting products in Malaysia focusing on the phase-out of incandescent (filament) bulbs announced by the government in year 2010. A total of 39 compact fluorescent lamp (CFL) samples (which was suggested by the government as a replacement to incandescent bulb) and other lighting technologies such as fluorescent tubes, halogen bulbs and Light Emitting Diode (LED) bulbs were studied to identify problems in lighting technology.

A report entitled 'Switch It Right' has been released on 16th October 2012 by AWER to highlight the issues surrounding the incandescent bulbs (GLS) phase-out programme in Malaysia. The report is available in Bahasa Malaysia, English and Mandarin at www.awer.org.my and www.click.org.my. An extended version of the report is available only at www.click.org.my as **Special Report**. The Special Report consists of testing result, rating and label of tested CFL specimens.

Last Friday (30th November 2012), the Minister of Energy, Green Technology and Water (KeTTHA) has announced that changing government lighting to LED lights will save RM 800 million annually of RM 2.7 billion annual electricity cost by the government (excluding statutory bodies).

However, this statement is doubtful, ambiguous and misleading.

Energy Consumption of A Typical Commercial Building in Malaysia

Most of the office or commercial building in Malaysia has air conditioning and ventilation. These are seen as one of the major factors of electricity consumption. Generally, electricity consumption for an office can be broken down to cooling and ventilation (60%), lighting (20%), office equipments and other (20%). In a worst case scenario, lighting reaches around 30% of overall electricity consumption. KeTTHA's statement of reducing about RM 800 million of overall Federal Government's lighting electricity consumption is equivalent to switching off all the lights!

Green lies and Lighting

The European Union and many other countries are phasing-out non-energy efficient incandescent bulbs and halogen bulbs and replacing them with CFL or LED bulbs. Any cost savings comparison for CFL and LED was given in comparison with incandescent bulbs **ONLY. There is NO global programme to phase-out fluorescent tube lights that has been part and parcel of Malaysian domestic, commercial and industrial lighting!** Are KeTTHA officers living in their own wonderland?

Currently, most of government offices are using these fluorescent lights for lighting. The fluorescent tube is having similar technology to CFL but it is better in terms of brightness output and operation life. Lately, the conventional ballast used in these fluorescent lightings is being replaced with electronic ballast. This has improved the energy efficiency of fluorescent tubes further.

Table 1: Comparison of cost for lighting in a 10 feet x 26 feet space using Fluorescent Tubes, CFL and LED

Item	Lighting Technology		
	Fluorescent tube (18W)	CFL (11W)	LED (11W)
Power consumption (Watt / W)	28	11	11
Total number of lights needed	2	6	6
Total estimated power consumption (Watt / W)	56	66	66
Usage period (8 hours a day for 240 days)	1920 hours	1920 hours	1920 hours
Total Power Consumption (kWh)	107.52	126.72	126.72
Total cost of electricity (RM) (A) *	42.26	49.80	49.80
Estimated initial investment (RM) (B)	50.00 (RM 25 x 2)	90.00 (RM 15 x 6)	480 (RM 80 x 6)
Total cost = A + B (RM)	92.26	139.80	529.80
Saving comparatively to fluorescent tube (RM)	-	Lose 47.54	Lose 437.54
Saving comparatively to fluorescent tube (%)	-	Lose 51.53 %	Lose 474.25 %

Carbon footprint (kg CO2 equivalent) **	72.04	84.90	84.90
Carbon footprint increase compared to fluorescent tube (%)	-	17.85	17.85

*Lowest electricity tariff for commercial building is 39.3 cents per kWh

**1kWh releases 0.67 kg CO2 equivalent

Table 1 shows the comparison of using different lighting technologies to lit an area of 10 feet x 26 feet. When a fluorescent tube is replaced with CFL or LED bulbs, more of these bulbs are needed to match the brightness output of a fluorescent tube. This will increase the investment cost, operation cost and actual carbon footprint. Fluorescent tubes do reach a long operating life ranging from 6000 hours to 60,000 hours depending on its construction, the operating conditions and type of control circuit. Now, are we being 'green' or tax money being robbed by KeTTHA's policy?

Issues related to 'Green' Lighting

Doubtful Product Information - Information about a product is mainly published on the packaging of the product or addition leaflet which is placed inside the packaging. Unfortunately, various products have flocked the market and create confusion among users. For example, if a CFL is claimed to operate for 8000 hours, what does this exactly mean to you? If you are using this bulb for 6 hours a day, the total operational year is **3 years and 237 days**. When you use the bulb for longer hours, the operational year will be shorter. So beware of claims on the product's packaging.

Product Quality & Pricing - Due to peaking demand for CFL and LED worldwide, quality of products that meets the demand will always be an issue. In Malaysia, there have been many cases where 'branded' CFL do not even last a year in operation. Now what guarantee the manufacturer can give to users to ensure quality of product is maintained while meeting the demand?

There is element of cartel and profiteering in the CFL and LED lighting product cost and government most probably will be taken for a ride if KeTTHA's proposal to switch to CFL or LED is implemented. AWER will be holding discussions with Malaysian Competition Commission (MyCC) to investigate the cartel and profiteering issues further. MyCC has actually given positive response over the findings in the 'Switch It Right' report.

Officers Sleeping on KeTTHA Secretary General's Order

On the 18th October 2012, the Secretary General of KeTTHA has instructed her subordinates to arrange a meeting with AWER as soon as possible to solve problems identified in the 'Switch It Right' report. Till date, these officers are sleeping on the matter and the recent announcement perhaps gives a clue why there was deafening silence. This also shows that something fishy is going on in the energy sector of KeTTHA especially when huge budgets and tenders are going to be involved.

Conclusion

AWER urges the Ministry of Finance to reject this preposterous proposal and conduct proper energy efficiency measures. We also urge the KeTTHA to gain proper and correct knowledge and not to confuse the public and businesses when issuing statements related to energy efficiency technologies.

"Two things are infinite: the universe and human stupidity; and I'm not sure about the universe - Albert Einstein"

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