

**Energy Efficient The Way Forward** 

## By Melati Ariff

This two-part articles looks into the electricity tariff hike and other consumer issues. This is part one of a two-part article.

KUALA LUMPUR, July 18 (Bernama) -- Those whose electricity usage is less than 300 kWh per month, or less than RM77, surely felt blessed when a new electricity tariff was announced on June 1.

The electricity hike impacted only those domestic users whose use was between 301 kWh to 1000 kWh a month.

Nevertheless, their good fortune may not last forever. As explained by S. Piarapakaran, President of the Association of Water and Energy Research Malaysia (AWER), fuel remains the highest cost for the electricity industry and it continues to rise.

He drew his conclusions based upon the 2008 National Energy Balance (NEB) report.

"According to NEB, the fuel mix in electricity generating is 56.6 per cent for natural gas, 33.4 per cent for coal, 8.1 per cent for hydro, 1.2 per cent for diesel and 0.7 per cent for fuel oil," he said. MAIN COMPONENTS

From the NEB's statistics, observers note the two important components that affect electricity tariffs, natural gas and coal. According to Piarapakaran, natural gas is supplied by Petronas at a subsidised price based upon a formula price determined by the government.

The coal, he said, is procured via international markets and is based on international market pricing.

"The coal price fluctuation impact on tariffs is currently being absorbed by Tenaga Nasional Berhad (TNB), as requested by the Federal Government, Piarapakaran told Bernama, in commenting on the recent electricity tariff hike announced by the Government last June.

He added that the rise in the electricity tariff was meant to complement the natural gas price adjustment, as well as the implementation of the "Feed-in Tariff" (FiT).

As he explained, FiT is a mechanism to promote the development of Renewable Energy (RE) promoted by the Government.

The initiative, he said, is being undertaken by the Sustainable Energy Development Authority (SEDA). RENEWABLE ENERGY

Piarapakaran told Bernama, among SEDA's functions is to administer the RE fund that is funded via electricity tariffs charged to consumers.

"One per cent of our tariff is contributed to the RE fund. This is excluded for domestic consumers with electricity consumption 300 kWh and below," he explained.

According to Piarapakaran, under the Tenth Malaysian Plan (10MP) the government intends to increase the RE energy mix, which was less than 1 per cent in year 2010, to 5.5 per cent in year 2015.

SEDA, he said, is expected to be fully operational by the end of 2011 and has four years to achieve the target set in the 10th Malaysian Plan.

"AWER urges SEDA to focus its priority, which is enshrined in SEDA's objectives of formation," said Piarapakaran.

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## SHOWS INCREASE

In terms of primary energy use (including all forms of energy resource), Malaysia recorded an annual average primary energy use increase of 6.1 per cent between year 2000 and 2008.

The increase in energy demand is not only closely linked to Gross Domestic Product (GDP), but also to population increase.

Piarapakaran stated that such a situation only proves that energy demand in Malaysia will be continuing to show growth above the projected world average primary energy usage.

He added that while fulfilling the country's own demands, the government should ensure that the electricity industry would be able to offer an equitable tariff for continuous growth of the economy.

"Our main concern is to ensure Malaysia remains a competitive market for investment.

"While the government is rationalising subsidies, our competitiveness becomes a vital parameter to maintain.

"We are already losing our competitive edge to Thailand and South Korea," he said.

Regarding that, Piarapakaran, speaking on behalf of AWER, suggests the implementation of a transparent tariff setting process with public involvement.

Through such a process, he believes, the public can eliminate their fear of tariff adjustments. Businesses and investors can also effectively plan for smooth operations in Malaysia. **ISSUE OF IPP** The Power Purchase Agreement (PPA) between TNB and the Independent Power Producers (IPP) has always been an obvious issue to be debated whenever there is talk about electricity tariff adjustments.

One of the factors of concern for the PPA is the fuel cost.

According to Piarapakaran, the fuel cost pass-through mechanism, which is currently being practiced, is unclear.

The public, he said, needs to be informed in detail how the fuel cost is passed through, as the fuel cost is part of our electricity tariff.

"From our study, IPP takes less than 10 years to achieve their return on investment. This goes to show that the IPP assume no risks at all in the electricity business.

"The IPP is also able to obtain financial loans to carry out their projects and all these costs are eventually passed back to the public via tariffs.

"The electricity generating sector must be regulated and we cannot simply allow those unscrupulous people who are driven only by profits to continue to have their way at the price of the well-being of the rakyat," said Piarapakaran with obvious concern.

AWER, he said, has prepared an in-depth-report on the future of the national electricity industry, among which were outlined key issues related to the national electricity industry.

The report was sent to all members of the cabinet, parliament and participating government agencies on June 2, 2011.

The full report has been made available at AWER's website www.awer.org.my. **ENERGY EFFICIENT** While it does not matter whether consumers are using less than 300 kWh or not, there is one point that Piarapakaran would like to share with the Malaysian public.

"Be energy efficient because we are also liable for the well-being of the next generation, " he said.

According to Piarapakaran, energy efficiency means optimising energy consumption.

As an example, buy energy efficient electrical products, prevent leaving equipment on stand-by mode and only use them as and when they are needed.

Also, periodically servicing electrical equipment is one good way to ensure they remain functional and efficient.

Electrical equipment, such as air-conditioners, microwave ovens, refrigerators and other equipment, which consume a lot of electricity, normally require servicing.

"As for AWER, we can only say this, that being energy efficient is the only way forward for us from now onwards.

"Our failure to adhere to this will only lead to a crisis," he added.

For those who are used to spending large sums of money to pay for their electricity bills, they may not be upset by the announcement of the electricity tariff hike.

But for those who are burdened with financial difficulties, there are still ways to minimise the hike's impact.

Consumers should be able to easily identify energy guzzling equipment.

According to Piarapakaran, equipment which have heating, cooling and rotating functions use more electricity.

"When we use equipment, such as air conditioners, water heaters, refrigerators and water pumps for fish tanks, we are going to use more electricity.

"Reducing their usage will lessen the electricity bill," he explained. **BE SELECTIVE** Consumers are also reminded to pay extra attention to equipment that is over 10 years old, as the amount of electricity used can be almost three times more than the latest models.

Therefore, it is advisable to buy a new energy efficient product, where possible.

Piarapakaran told Bernama that, as a start, the Federal Government is offering a RM100 rebate for air conditioners and RM200 for refrigerators that are energy efficient and have a 5-star label.

Such an offer, he said, are for brands participating in this programme at selected locations and on a 'first come first serve' basis until the end of 2011

Consumers are also advised to use equipment correctly to prevent unnecessary hikes in electricity bills.

Citing air conditioning as an example, Piarapakaran said air conditioners should be used in a closed room of a suitable size.

"If we fix an air conditioner in a space without doors, such as a dining area or rooms that are larger compared to the design capacity of the air conditioner, we will record higher consumption of electricity," he said.

He added that there are many opportunities to reduce electricity consumption.

The best way, he said, is using electrical equipment only when we need it and by also using energy efficient electrical products.

"Energy efficiency comes through design and the actual electricity consuming equipment. "Avoid leaving the equipment on stand-by mode. This consumes 10 per cent to 30 per cent of normal electricity usage," he explained.

## **BEWARE OF CHEATERS**

In their excitement to purchase efficient electrical products, consumers are reminded to be extra careful not to become victims of fraud.

According to Piarapakaran, there are many types of products that include 'meter reading reduction' stickers.

AWER, he said, has repeatedly raised this issue with the relevant agencies.

"The claims by such sales representatives that Energy Commission, TNB and SIRIM certify such products are untrue.

"If the public or businesses come across such products, please file complaints with the Energy Commission," he said.

Piarapakaran told Bernama that his side has managed to convince the Ministry of Domestic Trade, Cooperatives and Consumerism to work with hypermarkets in preventing such sales booths to operate on their premises.

"We fervently hope the rakyat will not be conned by such unscrupulous tactics to sell such non-functional products, which they claim, can reduce electricity consumption.

"There is only one way to obtain energy efficiency, which is through using energy efficient products," he added.

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