

<div align="center"><div align="justify" style="margin: 0in 0in 0pt">Yellowpost: Oct 26
◆ Nov 01, 2007 <p align="justify">FOMCA on Renewable Energy
</p><p>FOMCA has welcomed the decision by Cabinet Committee on Energy,
chaired by our Prime Minister, to NOT increase the price of natural gas. Realistically, however,
price increase of fuel, is a short term situation. A hike in fuel prices cannot be kept at bay
indefinitely. As such, a long term plan should be introduced to reduce the burden on industries
and consumers. The Yellow Post interviews FOMCA President, Datuk Marimuthu Nadason.
</p><p>Q1: The local dailies reported that PETRONAS◆ demand for an increase in
price for natural gas due to the increase in crude petroleum. What is FOMCA◆s view of the
present energy situation in the country? </p><p align="justify">FOMCA: The
Petroleum Development Act 1974 has paved a way to the formation of energy related policies in
Malaysia such as the National Energy Policy 1979, National Depletion Policy, the Four Fuel
Diversification Policy 1981, the Fifth Fuel Policy and National Policy. These non-integrated
policies have rendered unpredictable the forecast of energy management in our country.
</p><p>Q2: Could you please elaborate further on your last statement?
FOMCA: The usage of fuel in electrical energy generation is still high.
Monopoly of energy industries are with companies like Tenaga Nasional Berhad and Petronas.
The lack of availability of alternative energy sources will impact the lives of consumers each
time the international petroleum price hikes up. The general consensus at meetings related to
energy and its consumption pattern (at least at those attended by FOMCA) are that, due to
energy wastage by consumers an increase in fuel price will act as a deterrent that will help
reduce high energy consumption. </p><p align="justify">Q3: Would you comment on
energy wastage in Malaysia? </p><p align="justify">FOMCA:
Energy wastage is a result of unplanned development and, a combination of the various little,
unrelated elements. The implementation of the policies mentioned above is not in harmony with
other national policies. For instance, the National Automotive Policy (NAP) makes it very easy
for consumers to possess a car but there isn◆t a National Transportation Policy to complement
the NAP. Another cause for fossil fuel wastage includes long traffic congestions (due to the ever
growing number of automobiles on our roads). On the consumer market, electrical appliances
that consume too much energy are sold without any measure of control or monitoring. There are
also energy saving electrical appliances being sold to consumers. Sadly whether they do save
energy or not, is anyone's guess because there is no government or independent verification of
their claims. </p><p align="justify">Q4: How does the Ninth Malaysian Plan (RMK9)
address the energy issue? </p><p align="justify">FOMCA: Some of
the strategies that have been outlined for the energy sector from 2006-2010 are
</p><div align="justify">Ensuring sufficiency, security, reliability, quality and cost
effectiveness of energy supply, </div><div align="justify">Reducing high dependency on
petroleum products by availing the alternative fuel, </div><div align="justify">Promoting
greater use of renewable energy for power generation and by the industry, </div><div
align="justify">Intensifying energy efficiency initiatives in the industrial, transport and
commercial sectors including government complexes. </div><p
align="justify">Q5: What is your comment on these initiatives? </p><p
align="justify">FOMCA: The objectives stated above are very encouraging,
except that that they are focused more on industrial sectors. A larger problem will arise when
implementing the RMK9 as the planning is done by Economic Planning Unit, Ministry of Energy,
Water and Communication implements the Renewable Energy (RE) and Energy Efficiency (EE)

initiative, and biofuel development by the Ministry of Plantation Industries and Commodities. The effectiveness of policy implementation is questionable. Q6: Could you elaborate on that?

>FOMCA: Currently planning and implementation involves different parties. The inefficiency in the chain of command will cause delay or failure in implementation of policies. Planning and implementation should be managed by one agency and the same agency must also maintain the accuracy and effectiveness of dissemination of information.

>Q7: How would this impact the consumer?

>FOMCA: The changes in the energy sector will give a two fold effect to consumers, the direct effect and indirect effect. The direct effect is the increase of the fuel price which will immediately affect living costs. Malaysian consumers only have the natural gas and petrol / diesel as a choice. Monopoly in this market leaves consumers to bear the burden without any choice in the matter. The prices of goods and services will naturally escalate. The options being developed under the RMK9 is somewhat confined to the industrial and government offices. Domestic consumers have no opportunity of benefiting from an environment friendly, sustainable, easy to obtain and cost effective technology.

>Q8: Would you say that Malaysian consumers are aware of the alternative fuel sources?

>FOMCA: It is undeniable that our consumers are aware of the information available. The internet helps disseminate information on the availability of RE Technology. However, the consumers have little choice but to use the only source of energy open to them; non-renewable energy sources such as petroleum, natural gases and coal.

>Q9: Tell us more about these alternatives.

>FOMCA: Available RE Technology encompasses the Photovoltaic System, Agricultural Industry Wastes Energy harvesting (Biomass) and Sewerage and Solid Wastes Energy harvesting. Solar energy is as yet largely an untapped energy source. The Malaysian Building Integrated Photovoltaic Technology Application (MBiPV) presently conducts research in that area. In Kuala Lumpur 1000kWh (kilo Watt per hour) electrical energy can be obtained through the research. The government, should it decide to promote the use of PV, must provide adequate incentives for the purchase of PV systems.

>In Indonesia, 25000 PV systems have been installed through aid from the government and international NGOs. The Philippine National Oil Company's (PNOCs) supplied PV systems to 2160 households in Cordillera, the Visayas and internal parts of Mindanao. In 2007, 15000 more households are expected to energy supplied by the PV system. In India, the Solar Photovoltaic Market Development Programme has already been implemented.

>Q10: What would be the cost of installing and implementing as well as maintenance of this system?

>FOMCA: The cost per unit per household is not at all economically viable. Excluding maintenance a household would have to spend RM50 000 RM 100 000 on the system. This is to accommodate household monthly bill of RM 80 to RM 150. The system is only economically viable when large percentage of the Malaysian households adopt the PV system. It's like when air conditioners and contact lenses first hit the market. The price reduced remarkably only when the masses began to use the product. If the government undertakes the implementation of the system in full scale then I'm quite sure they will ensure that it is economically viable.

>Q11: How about agricultural industry wastes as an alternative source of energy?

>FOMCA: Sources of Biomass (agricultural waste) include wood, straw, animal waste and sugar cane waste. Biomass energy is able to supply power to an

entire town, while saving thousands of barrels of petrol. Brazil generates 43.8% of its fuel from RE sources. The RE sources include hydroelectric dams, ethanol and biomass. Currently, India has already begun extracting biomass from animal waste to supply energy for domestic use.

Q12: What would the approximate cost of a) setting up and b) maintenance of the system?

FOMCA: The cost of setting up and maintenance may not be very different from current natural gas based power generators. Maintenance is necessary to any industry, if we can save a lot by using agricultural wastes to generate energy, in long term it will be a sustainable industry. That is why alternative fuel and renewable energy are given assistance by the government to start up.

Q13: You mentioned Sewerage and Solid Wastes Energy harvesting. Could you elaborate on that?

FOMCA: Methane obtained from sewerage is an excellent source of fuel. Both Sewerage and organic waste may be used to generate power plus the residue of which can be used as organic fertilizer. However, non-organic solid waste in Malaysia is unsuitable for energy generation. This is because of high moisture content in solid waste.

India extracts methane gas from its sewers and channels the energy to households for domestic use. Anaerobic digestion (fermentation) in the sewages can effectively convert 75% of the biochemical oxygen demand (BOD) into methane. By this means, water contamination from sewages is effectively reduced.

Q14: Again, sir, what are the figures involved?

FOMCA: We already have a sewerage system in place; we need to study the additional structures and technologies to do this. A full scale study and selected plants should be built. If in India it is possible I do not think it will be difficult to implement here.

Q15: In FOMCA's opinion which would be the most affordable and suitable system for Malaysia?

FOMCA: If projects are done case to case basis it would not be affordable. Supply and demand must be balanced to stabilize the price. If there is a mechanism to move towards a solution, for example, in 2010 we are going to fully use biofuel for vehicles, there will be biofuel plants be built, the supply will be created. On the demand side, proper standards and certification assures consumers, the development in automotive industry will also pave towards this. If we can plan it such a manner, it will be affordable.

Q16: Do you feel that Malaysia has the resources available to embark on these new territories?

FOMCA: We sent a Malaysian astronaut to space, didn't we? Fortunately, alternative fuel isn't rocket science, it is energy management. Conversion to electrical energy has been here for sometime. It is, therefore, up to us to optimize and use it in a sustainable manner. Lots of development regions have been created now. These regions can be planned earlier, matching industries to reduce wastage. An integrated approach will always benefit all.

Q17: In the Memorandum, Position 5 recommends that alternative fuel must be developed without monopoly. Could you tell us how monopoly of these resources will be counter-productive?

FOMCA: In developing alternative fuel, monopoly must be avoided so as NOT to burden consumers once full changes have taken place. Energy industry was privatized to reduce government burden and give affordable service to people. The monopoly of the industry makes no choice for consumers to switch if service is not to expectation. Monopoly will put consumers at a non demanding state and they are forced to make the one available choice. If you are given a choice of driving to work on a efficient public transport system compared to now, will you drive? No. So, provide choices and prevent

monopoly.

Q18: Position 6 recommends that Enforcement towards the new technology must be done holistically and effectively. Which aspects are you referring to?

FOMCA: Enforcement will be the important element in the prevention of inferior quality and ♦imitation♦ materials reaching consumers. Quality and certification monitoring must be implemented. The assurance will create a better consumer drive towards eco-friendly products. Stern action should be taken on non-compliance of retailers and vendors engaging in ensuring that the sales of equipment or fuel sold meet the standards set by the government. We have retailers washing hand by using manufacturers as the scapegoats. Insecurity will deter the consumers from choosing eco-friendly solutions.

Q19: Position 7 refers to giving consumers the choice. How do you mean this?

FOMCA: Increase in price will have multiple-fold effect on consumers. So, it is the social responsibility of our government to ensure that the rights of consumers safeguarded, not removed. Without having the right to choose, consumers will be forced to use whichever available source of fuel in the market. Once again, I reiterate the importance of maintaining a non-monopoly stand of RE and alternative Fuel by the sectors involved.

Q20: How may the public access FOMCA♦s recent release of Memorandum: State of Energy and Consumers?

FOMCA: In the memorandum, released on the 20th September 2007, FOMCA has outlined seven main positions in relation to the topic. Consumers can visit our website to check the details in the memorandum which is available in Bahasa Malaysia and English. FOMCA will also monitor the development in the energy field to protect consumer♦s rights. We believe the consumers themselves should come forth to educate themselves with the available technologies so that they would not be caught in surprise if there is change in policies and technologies. That is also a reason we stress continuous consumer education as one of our stand. We always believe "Best Protection is Self Protection".