VIEWPOINTS

Smart Energy Consumption Could Preserve Natural Resources

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Energy plays an important role in our lives. It comes in several forms which can be utilised to keep people warm during cold weather, provide foods, improve transportation, and increase productivity. When energy is utilised efficiently, it brings great comfort to our lives. However, energy consumption has been increasing in recent decades as the world population keeps growing. According to a United Nation (UN) report, the current world population of 7.4 billion is projected to increase by 1 billion over the next 10 years and reach 9.6 billion by 2050. Besides population, the standards of living for many people in developing countries is increasing, which in turn results in growing energy demand.

As a developing country, Malaysia is not immune to this growing energy demand. The Energy Commission reported that energy consumption in Malaysia is showing an increasing trend year by year. The country's energy output is primarily generated from burning limited fossil fuel resources such as coal, natural gas, and oil. The burning of fossil fuels releases large amounts of carbon, a well-known significant greenhouse gas that causes global warming. This not only hugely impacts the environment, but also incurs great costs for Malaysia, which relies heavily on this resource. It was reported on 1 April 2017 that Malaysia's power generation industry spent RM15.1 billion to generate 120,059 Gigawatt-hours (GWh) of electricity for 8.45 million customers in Peninsular Malaysia. To get a clear picture of fossil fuel dependency, the International Energy Agency's report, 'World Energy Outlook 2007', states that between now and 2030, global energy needs are expected to grow, and that fossil fuel will remain the dominant source.

In order to reduce fossil fuel dependency, energy mix is introduced as an alternative measure to face shortage. Some countries that have already started to harvest energy from alternative resources, like the United Kingdom for example, have successfully reduced their energy consumption in comparison to what it was in the 1970s, despite an extra 6.5 million people living there. In Malaysia, this energy mix strategy has successfully reduced oil dependency from 87% in 1980,

to less than 1% today. However, since the energy mix is only based on other fossil fuels, dependency on coal and natural gas has increased to 87% for both, while less than 10% comes from hydroelectric. Surprisingly, Malaysia is one of the top ten coal importers in the world even though, at the same time, it is one of the world's top ten liquefied natural gas (LNG) exporters. This dependency on fossil fuels can no longer last for the Malaysian energy sector, thus the quest to seek other alternative sources of energy is crucial.

Recently, the government of Malaysia started to consider nuclear energy as part of the national energy mix. The proposal to have a nuclear power plant has been taken into consideration since the country's energy consumption keeps increasing, while the main energy source, fossil fuels, is running out. According to the Eleventh Malaysia Plan (11MP) 2016-2020 under 'Anchoring Growth on People' agenda, it is stated that 'the usage of nuclear power as an alternative energy resource will be explored'. The Malaysian Nuclear Agency added that, 'Malaysia will further explore the deployment of nuclear power as an option for electricity generation for post-2020 in Peninsular Malaysia'. It is almost confirmed that Malaysia will be having a nuclear power plant sooner rather than later, Minister in the Prime Minister's Department, Datuk Nancy Shukri has stated that Malaysia's nuclear power programme will kick off after 2030, subject to the approval of the atomic energy regulation bill by Parliament.

Currently, the implementation of nuclear energy as part of the energy mix faces a few challenges, as the government and related agencies need to convince the public about the safety of nuclear power, to identify the source of financing for a nuclear programme, to obtain approval for a plant site and acquire public support on locality. It can be seen that the government of Malaysia is struggling to fulfil the country's energy demand, which involves complicated processes of building nuclear power facilities. From the writer's point of view, the search for alternative energy resources is an endless journey if the energy consumption is 'allowed' to increase without implementing 'green practices'. According to Dr Shaikh Mohd Saifuddeen, a senior fellow from the Institute of Islamic Understanding Malaysia (IKIM), 'green practices' are practices that can lead to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources for current and future generations. In his presentation during the *International Seminar on Islam and Green Technology 2016* at the International Institute of Advanced Islamic Studies (IAIS) Malaysia, he stated that we can have all the renewable energy and green technology that we can utilise and develop, but without green practices there will still be wastage.

Therefore, we could act responsibly by considering 'green practice' through 'energy efficiency' implementation in order to reduce the rise of energy

consumption. Basically, ‘energy efficiency’ is the goal to reduce the amount of energy required to provide products and services. This is one of the best measures which we could take on our own initiative, to address the issue of increasing global energy demand. Moreover, around 22% of Malaysia’s energy consumption is from the residential and transportation sectors, which involve energy consumption by ordinary people like us. Instead of considering alternative source of energy such as nuclear, at this moment we have an option to choose an alternative way of life that practices ‘energy efficiency’. Among ‘energy efficiency’ practices, we could consider changing inefficient appliances with more efficient ones; reduce the loads of mechanical appliances that require more operating energy; upgrade building insulation and roofing, have good air ventilation to support natural cooling; and use energy-saving control systems in most electrical appliances, when possible. This might need some upgrading to our homes, but the investment will definitely give positive returns without involving large amounts of cost. We can start such practices by ensuring our next purchases are of ‘energy efficient’ products and equipment. It should be noted that this responsibility must also be taken by those who are from the commercial and industrial sectors, as they make up 78% of total energy consumption in Malaysia. These practices are actually in line with the Islamic teaching to be moderate in the use of resources, to be assiduous in their use and avoid extravagance (Q al-A’raf, 7:85). It is always our challenge, and not only the government’s, to address the issue of increasing energy consumption. Self-awareness and timely initiative through ‘energy efficiency’ implementation plays an important role in conserving existing resources for future generations.

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