

Making Efforts In Sustainability Count

by Ms. Suvarna Ooi

ALMOST every country around the world has begun to pay more attention to the issue of sustainability. Yet, how many of us are aware of what the word truly means? The most popular definition of sustainability can be traced to a 1987 UN conference which defined sustainable developments as those that "meet present needs without compromising the ability of future generations to meet their needs".

JURUTERA approached Ir. Assoc. Prof. Dr Vigna Kumaran Ramachandaramurthy, Chairman of The Institution of Engineering and Technology (IET), Malaysia Network; Ir. Lee Kok Chong, Chairman of the Electrical Engineering Technical Division (EETD) of IEM; and Mr. Anthony Tan Kee Huat, Executive Director of the Centre for Environment, Technology and Development, Malaysia (CETDEM) to obtain their take on Malaysia's efforts to address the issue.

Ir. K.C. Lee was first asked to comment on the government's commitment to encourage and pursue sustainable practices. Ir. K.C. Lee said, "Our government has begun to give priority to issues concerning sustainability. Even the Economic Transformation Programme has allocated a substantial amount for the development of green technology, renewable energy and green buildings. The country also has to strive to achieve its target of a 40% reduction in carbon dioxide emissions by 2020."

He added that IEM, as a learned society, has a duty and responsibility to educate and create awareness among its members on how the country can achieve this target. One of IEM's most recent efforts was the IEM-IET Energy Conference (IIEC 2011), organised by the Electrical Engineering Technical Division (EETD) of IEM, together with The Institution of Engineering and Technology (IET), Malaysia Network.

Themed "Sustainable Solutions for Energy Utilisation", the conference was attended by more than 300 local and overseas participants who listened to speakers who shared their experiences, research and study findings, and views on wide-ranging topics such as energy efficiency and conservation, power quality, green technologies, renewable energy, energy policies, best practices and case studies.



Ir. K.C. Lee, who was the chairman of the conference together with co-chairman Ir. Assoc. Prof. Dr Vigna, said, "IIEC 2011 brought together both international and national experts and policymakers to discuss on the relevance and importance of energy in the context of a sustainable future." He added that a technical exhibition was also held concurrently with the conference to highlight the latest design solutions and application of sustainable solutions for energy utilisation.

Ir. Assoc. Prof. Dr Vigna pointed out that one of the objectives of the conference was to disseminate information on government policy to the engineers. He said, "We invited speakers who explained the government's policy on sustainability, and talked about the latest initiatives and renewable energy development. We also invited energy policy experts from the United Kingdom, Sri Lanka, Taiwan and Indonesia to share about the sustainable energy policy in their respective countries."

He pointed out that Malaysia needed to learn from and exchange information with other countries that are ahead of us. He said, "For example, the UK has got an energy plan until 2050, which is something Malaysia does not have. We need a more comprehensive plan as we only have the Renewable Energy Act that will only last until 2020."

According to Ir. K.C. Lee, the IIEC 2011 had focused on disseminating government policy, uncovering the latest engineering and technical advancements, revealing the latest discoveries in renewable energy, and even creating business opportunities. He said, "In fact, Dato' Ir. Donald Lim Siang Chai, Deputy Finance Minister, in his opening address, had

encouraged IEM to organise similar conferences in the future. He also urged the institution to provide constant feedback to the government to assist them in their efforts to establish the best policy for the country.”

Ir. K.C. Lee also observed that Malaysian engineers, in general, were really keen to learn and explore the issue of sustainable development. He encouraged the engineers to attend more talks, seminars, courses, training programmes and conferences organised by IEM in order to broaden their knowledge on the subject. He would also like to see them come forward to collaborate with IEM on projects in this area.

He pointed out that IEM is also currently preparing a “Position Paper on Alternative Energy for Power Generation”, which is led by Ir. Ali Askar bin Sher Mohamad. He explained that the position paper will take into consideration all kinds of alternative energy.

In addition, Ir. K.C. Lee strongly believes that now is the right time to set up a Sub-Committee within IEM to look into areas such as green technology and renewable energy. He said, “Currently, IEM does not have a subcommittee looking into these areas. And we need to establish one solely dedicated to this because there is a lot to do and it would be too much for any one of the existing Technical Divisions to handle.”

He added that IEM could play an important role in the formation of such a Sub-Committee as the latter might consist of representatives from the various Technical Divisions and should consider allowing members from any Technical Division to participate in its activities if they have the interest to do so.

The Sub-Committee, through an advisory panel, could also offer consultancy services to the government and the private sector, which includes conducting energy audits on buildings to help building owners reduce their energy cost.

Ir. K.C. Lee said, “The government can lead the way by making all government buildings energy efficient, followed by the private sector. This way, we will eventually have an energy efficient society and achieve the nation’s target of reducing its carbon emission by 40%. Imagine the impact if only every household could save just 10% of its energy cost.”



Ir. Assoc. Prof. Dr Vigna Kumaran Ramachandaramurthy
Chairman of The Institution of Engineering and Technology (IET), Malaysia Network



Ir. Lee Kok Chong
Chairman of the Electrical Engineering Technical Division (EETD) of IEM



Mr. Anthony Tan Kee Huat
Executive Director of the Centre for Environment, Technology and Development, Malaysia (CETDEM)

Ir. Assoc. Prof. Dr Vigna said, “Sustainability has now become a global issue. And although Germany is quite advanced in this area, the rest of the world is working hard to catch up. In Malaysia, we have the Green Building Index (GBI) and strong representation from various organisations in championing the issue.”

He added, “As a nation, we are making good progress as the government has offered numerous incentives and financial assistance to kickstart the sector. IEM will also be playing its part by contributing articles on the subject to be published in local dailies soon as part of its direct outreach program to educate the public.”

Ir. K.C. Lee explained that some of the incentives that have been offered by the government include income tax exemption for green technology investments, import duty exemption of green technology, as well as setting up of a RM3 billion fund to be dispersed as loans for the development of green technology.

At the same time, the government has also recently launched the SAVE program to encourage members of the public to make the switch to energy-efficient electrical appliances. Several local town councils, for instance, have been encouraging green building development within their own localities.

CENTRE FOR ENVIRONMENT, TECHNOLOGY AND DEVELOPMENT, MALAYSIA (CETDEM)

According to Mr. Anthony Tan, CETDEM has been promoting sustainable development for many years. Founded in 1985, CETDEM is an independent, non-profit, training, research, consultancy, referral and development organisation. It is committed to improving environmental quality through the appropriate use of technology and sustainable development.



COVER STORY

Between 2003 to 2006, CETDEM managed a project funded by the UNDP Global Environmental Facility (GEF) to raise awareness of urban Malaysians towards the potential for sustainable energy usage through energy efficiency and renewable energy. The ABC Project, which began in April 2003, involved about 238 homes in five towns across Malaysia, namely, Petaling Jaya, Ipoh, Kuantan, Kuching and Kota Kinabalu.

He said, "In this project, we were able to guide them to act on reducing their energy consumption, thus reducing their ecological footprints in terms of reducing greenhouse gas emissions. Those involved in the project completed energy audits on their homes, which gave them an idea of how much energy was being consumed in the home."

Tan mentioned that, in the same year, CETDEM also launched the WCPJ Project, also known as the Working with the Community on Energy Efficiency at Household Level in Petaling Jaya Project, which was designed as a follow through of the ABC Project and was funded by ExxonMobil Malaysia.

He said, "For this project, CETDEM worked with the Resident's Associations (RAs) through, what was then known as the Majlis Perbandaran Petaling Jaya (MPPJ), to identify participating households. The select group of 50 to 60 participants were exposed to issues relating to energy usage in the home and highlighted on the importance of being efficient users of energy. An energy audit was also carried out by each household."

In 2009, CETDEM decided to spread its message on energy efficiency and conservation practices in schools. Again with funding from ExxonMobil Malaysia, CETDEM launched the Secondary School Energy Efficiency Action Project (SSEEAP), which focused on promoting energy efficiency to students, teachers and staff to reduce their energy consumption in schools.

Tan said, "Our latest effort is the launch of the Sustainable Development Initiatives (SUDI), an independent 'think tank' under CETDEM that will focus specifically on sustainable development issues. Launched on 1 August 2011, SUDI will bridge the huge information gap between the various stakeholders."

He explained that, among others, the objectives of SUDI will include facilitating the success of a comprehensive green development policy; providing the government, energy-related companies, media, and other stakeholders an independent assessment of the energy and sustainable development-related issues; and promoting the use of genuine green technology as one of the ways to make the transition to sustainable industrial development.

Some of the areas that SUDI will focus on include low-carbon development options; creating a more concerted and strategic approach to green technologies; and intensifying energy efficiency and renewable energy efforts especially in the industrial and transport sectors. ■

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