



Ir Ahmad Fauzi Bin Hasan
Chief Executive Officer
Energy Commission

ENERGY EFFICIENT

A diamond-shaped building in Putrajaya stands as a primary showcase of what is a sustainable and energy efficient building that symbolises the Malaysian Energy Commission's role in pursuing energy efficiency

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Editor's Note



While the question of reducing energy consumption may appear to be in conflict of interest with the nature of Tenaga Nasional Berhad's (TNB) business model, it is in fact an area that the company is seriously committed to and is aggressively pursuing, in line with the global effort to promote what is known as energy efficiency.

By definition, energy efficiency simply means to conserve the use of energy, to use less to accomplish the same task. It is something that affects every single individual, from purchasing energy saving household appliances, to the use of more efficient industrial equipment, both of which will help the end user save energy, reduce the cost of operations and in the process still able to generate the same desired results or even better.

Lesser use of electricity may on the surface be seen as reducing the bottom line of any utility company, but on the contrary, when viewed from a macro scale, it reduces the amount as well as cost of raw materials required to produce electricity – which has today resulted in a difficult and increasing global demand for coal – and in the process provides an even greater platform for economic growth and productivity.

An even greater contribution is of course energy efficiency helps to reduce emissions that contribute to global warming, it results in less air pollution and hence, preserves a cleaner environment.

In this issue of Tenaga Link, we speak to the Malaysian Energy Commission that is aggressively in pursuit of establishing new standards in energy efficiency. On the same note, we look into how TNB Energy Services Sdn Bhd is contributing towards promoting greater awareness for energy efficiency in support of the national agenda of enhancing competitiveness and achieving higher productivity.

As global awareness increases, the Malaysian Government, consumers, manufacturers, industries and businesses alike have also begun to make a more conscious effort towards not only fulfilling the goals and objectives of energy efficiency, but enjoying its benefits and the long term advantages it offers.

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Energy Efficiency Conserves the Use of Conventional Energy and Promotes the Greater Use of Renewable Energy



Ir AHMAD FAUZI BIN HASAN
Chief Executive Officer
Energy Commission

A diamond-shaped building in Putrajaya stands as a primary showcase of what is a sustainable and energy efficient building that symbolises the Malaysian Energy Commission's role in aggressively pursuing to establish new standards in energy efficiency.

Completed in 2010, the unique and slanted shape of the 8-storey building allows not only for a great deal of natural

daylight to illuminate the offices, thus reducing dependence on artificial lighting, but also reduces heat. As opposed to the use of air-conditioning, the building relies on chilled water that is embedded in the concrete slabs for cooling. A rainwater harvesting system has also been incorporated into the building whereby rainwater collected is deployed for use in the toilets and for irrigation purposes.



As it stands, it is also the only building in Malaysia that has been built to attain platinum rating under the Singapore's Green Mark and Malaysia's Green Building Index Building Sustainability Assessment Schemes.

"The completion of this building is very timely in terms of advancing the Government's agenda in energy efficiency for the country," said the Energy Commission's Chief Executive Officer Ir Ahmad Fauzi Hasan.

The Energy Commission is a statutory body established to regulate the energy sector in Malaysia, specifically the electricity supply industry and piped gas supply industry in the Peninsula and Sabah. It is responsible for ensuring that the supply of electricity and piped gas to consumers is reliable, efficient, safe and at reasonable prices.

As a regulating body and being in the forefront of enhancing awareness for energy efficiency, the Energy Commission has embarked on numerous programmes and activities with the objective of conserving the use of conventional energy and promoting the greater use of renewable energy.

One significant initiative introduced by the Energy Commission was the star index rating system for electrical appliances in 2010. The system accords ratings of 1 to 5 for appliances and products that conform to energy efficiency criteria.

While it is still voluntary for manufacturers to subject their products to being rated under the system, Ir Fauzi said the rating system has received encouraging support from industry players. The labels used to advertise the rating of such products have also contributed significantly to promoting greater awareness for energy efficiency amongst consumers.



TNB has already been awarded the first project by the Government in which the proposed coal-fired power plant will be about 3% more efficient than conventional plants

Energy efficient products that currently comply with energy efficiency criteria include:

- Domestic Refrigerators
- Domestic Fans
- Television
- Air Conditioners (Single Split Wall Mounted Type)
- Lamps

Products also include all ballasts for fluorescent lamps approved by the Energy Commission which have fulfilled the minimum energy performance requirements for ballast losses in watt. Other products include:

- Insulation Materials
- High Efficiency Motors

Moving forward, Ir Fauzi said the Energy Commission hopes to introduce the implementation of minimum energy performance standards for electrical appliances. Once in place, products not conforming to such standards will not be permitted to be imported or sold in the country.

Ir Fauzi said the Energy Commission is also in the forefront of promoting greater awareness for energy efficiency amongst consumers.

"Energy efficiency should ideally be embraced as a culture. It is a question of people wanting energy efficient products that would ultimately help to reduce their electricity consumption and usage. In Scandinavian countries and in Japan for example, the society today is more sensitive to energy efficiency practices.

The degree of awareness in Malaysia has been increasing but we must now make bold steps and this involves using a multi-prong strategy to enhance the level of awareness further so that it becomes embedded as a culture.

"The labelling of energy efficient products is one way of promoting greater awareness amongst consumers, with more and more manufacturers investing in the production of energy efficient

appliances," Ir Fauzi pointed out, adding that the Energy Efficiency Masterplan was now in the process of being drafted by the Ministry of Energy, Green Technology and Water to enable programmes, policies and regulations on energy efficiency to be more structured and organised.

While energy efficient products are generally more expensive, he added that these products offered consumers a payback period which would result in electricity savings over the long term.

In promoting energy efficiency, the Government currently extends a number of incentives.

Companies providing energy conservation services for example, are accorded Pioneer Status with income tax exemption of 100% of statutory income for 10 years; or Investment Tax Allowance of 100% on the qualifying capital expenditure incurred within a period of 5 years. The allowance is to be set-off against 100% of the statutory income for each year of assessment. Import duty and sales tax exemption on energy conservation equipment that are not produced locally and sales tax exemption on the purchase of equipment from local manufacturers are also given.

Companies which incur capital expenditure for energy conservation for their own consumption meanwhile are entitled to Investment Tax Allowance of 100% of the qualifying capital expenditure incurred within 5 years. The allowance is to be set-off against 100% of statutory income for each year of assessment. Import duty and sales tax exemption on energy conservation equipment that are not produced locally and sales tax exemption on the purchase of equipment from local manufacturers are also given.

Companies which import energy efficient products are also given exemption of import duty. Sales tax on equipment such as high efficiency motors and insulation materials are given to importers and authorised agents approved by the Energy Commission.



Ir Fauzi said companies which manufacture locally energy efficient products such as refrigerators, air conditioners, lightings, fans and television sets, are also provided sales tax exemption.

In future, the implementation of a Smart Grid System will enable consumers to better track, monitor and control their electricity usage.

Apart from demand side management, Ir Fauzi elaborated energy efficiency initiatives also involve a wide spectrum of the supply side activities, relating to power generation, transmission and distribution.

One significant supply side initiative in 2010 he added, was the implementation of competitive bidding for new generating capacity, whereby under this scheme, the Energy Commission administers the bidding process, to select the most competitive new generation plant-up proposals from power producers.

TNB has already been awarded the first project by the Government in which the proposed coal-fired power plant will be about 3% more efficient than conventional plants. Ir Fauzi said the Energy Commission is also working closely with TNB to reduce losses in the transmission and distribution system.

In efforts to further enhance the economic efficiency of the industry, the Energy Commission is also embarking on initiatives to implement the incentive-based regulatory regime that has been successfully implemented in many developed countries.

Although the economy of the nation grows and the Gross Domestic Product (GDP) increases, he pointed out; preferably electricity demand should not rise in tandem.

“The goal is to decouple energy demand growth from the growth of the GDP.” ■



Understanding Energy Efficiency



1. Definition of Energy Efficiency (EE)

Energy Efficiency is an act of using less energy to accomplish the same task.

In homes and commercial buildings, it means using less energy to heat, cool and light buildings. It could also involve the use of energy saving/efficient appliances.

In factories and manufacturing facilities, Energy Efficiency relates to processes that achieve the same tasks but require less use of energy. This is generally achieved with the use of more efficient motors, Drive system, compressed air systems and other high efficiency industrial equipment.

2. Why is Energy Efficiency important?

The efficient use of energy will result in energy conservation hence less money being spent on energy thus translating into lower energy/electricity bills.

The overall benefits of energy efficiency are:

- **Cost:**
 - Reduced energy costs which leads to lower operating costs and therefore higher profits
 - Positive effect on productivity and competitiveness
- **Environment protection:**
 - Reduction in emissions that contribute to global warming
 - Less air pollution and a cleaner environment
 - Energy Efficiency is also the most promising means to reduce GHG in the short term
- **Security of supply:**
 - Less power plant, transmission and distribution system upgrades and construction
 - Curbing global or nation energy demand growth, improves security of supply
 - Less usage of energy means less fuel that is required to be burnt which leads to long term reduction in energy utilisation. This helps prolong natural resources such as fossil fuel, coal and gas.

3. Does energy efficiency equate to energy conservation?

Energy conservation is not necessarily translated to mean energy efficient. Both energy efficiency and energy conservation however, will save energy and reduce the cost of operations.

- **Energy efficiency:**
 - This is achieved with the application of efficient technology, such as high efficiency motors, lighting, etc.
 - It involves investment cost and requires expert to identify the right technology. Energy efficiency is mostly applied to industries.
- **Energy conservation:**
 - This is achieved through efficient use of energy, such as turning off lights and electrical appliances when not needed, using daylight, etc.
 - It does not involve cost and requires behavioural change. Energy conservation is applied across all sectors.

■

TNB contributed RM1.5 million towards awareness on Energy Efficiency, promoting Energy Efficiency practices

Shahrir Abdul Latiff
Managing Director
TNB Energy Services Sdn Bhd



Tenaga Links speaks to Shahrir Abdul Latiff, the Managing Director of TNB Energy Services Sdn Bhd on the merits of Energy Efficiency and the company's contribution towards helping Malaysia achieves higher productivity. TNB Energy Services Sdn Bhd focuses on Energy Efficiency and Renewable Energy business.

Energy Efficiency essentially means using less energy to accomplish the same task.

In homes and commercial buildings, this simply translates to using less energy to heat, to cool and light buildings while also using other energy saving appliances.

In the case of industries meanwhile, Energy Efficiency resorts to identifying processes that achieve the same tasks but using less energy. This could involve the use of more efficient motors, Drive systems, compressed air systems and other high efficiency industrial equipment.

Being the national utility company, TNB is a firm and keen supporter of Energy Efficiency. While it would seem that TNB's bottom line could be affected by promotion of Energy Efficiency, the reality is in fact very much the opposite. TNB perceives Energy Efficiency as a promising mean towards enhancing competitiveness and achieving higher productivity for its customers especially in the industry sector.

"We (TNB) have to look at the bigger aspect because the more energy that is consumed by consumers, the more fuel is required by TNB to produce the desired amounts of energy which is cost to TNB," said Shahrir Abdul Latiff, the Managing Director of TNB Energy Services Sdn Bhd.

"The promotion and implementation of Energy Efficiency ultimately reduces the use of energy thus reducing the amount of fuel required to produce the energy. The anticipated decrease in electricity demand is then in tandem with the reduction in generation cost. Under this scenario, we don't expect any adverse impact in TNB's profit margin. In fact, in

the long term, TNB could expect the initial reduction in revenue will start to rise again due to positive effect on productivity and competitiveness."

Shahrir explained that as the world begins emphasising on ways to reduce its carbon footprint, the awareness for Energy Efficiency was gradually increasing. This is especially true with the evolving trend which has also seen the majority of today's manufacturers being more inclined towards introducing the use of more energy efficient household electrical appliances.

Awareness of customers (domestic & commercial) in Malaysia on Energy Efficiency or energy savings however remains low. It is mainly due to the low electricity tariff therefore resulting in customers feeling that there is no urgency to seek more efficient use of energy.

"But consumers have to be aware of the issues related to fuel security – fossil fuel is a limited resource, it is depleting. The cost of obtaining these resources is increasing. Therefore, as a consumer we have to play our part to save energy and use energy efficiently."

TNB began focusing on the greater use of green technology and processes as early as 2005. In collaboration with the Federation of Malaysian Consumer Associations (FOMCA), TNB had also promoted Energy Efficiency by way of campaign to encourage the public and industries to conserve the use of electricity. The campaign also zoomed in on enhancing the awareness of school children. During the course of the two-year campaign (from 2009–2010), TNB contributed RM1.5 million towards awareness on Energy





Efficiency, promoting Energy Efficiency practices, as well as improving and increasing usage of Energy Efficient products and equipment.

TNB Energy Services Sdn Bhd is also in the early stages of developing TNB's very own solar farm in Putrajaya which when completed, will be capable of producing 5MW of power and is destined to become the flagship project for Energy Efficiency of the country.

Other efforts by TNB include the introduction of an electricity tariff structure designed to encourage Energy Efficiency practices by customers whereby the more electricity an individual uses, the higher the tariff rate he/she is required to pay.

TNB itself, Shahrir explained, continue to commission studies and research programs on distributed generation, micro grid, demand side management etc. aimed at reducing power generation, transmission and distribution losses. TNB also performs energy audits on its own buildings to assess how energy being consumed and to seek opportunities for energy savings.

These efforts he added echoed the Government's aggressive drive to promote the more efficient use of energy. The

Government through the Energy Commission & SIRIM already has in place a set of standards for Energy Efficient products in which star ratings are accorded to products such as refrigerators, electric fans, air-conditioners and televisions. Others - though are not accorded star ratings but still qualify as Energy Efficient products - include electronic ballasts for fluorescent lamps, LED lightings, high efficiency motors and advanced insulation materials for buildings. Shahrir said the availability of such products in the market have contributed significantly towards educating and promoting consumers on Energy Efficiency.

TNB Energy Services Sdn Bhd today is also actively promoting Energy Efficiency at industrial level, visiting manufacturing facilities and factories to conduct energy audits aimed at assisting business owners in benefitting from the more efficient use of energy. Industry consumers account for the largest energy consumption.

Depending on the size of building and operations, an energy audit usually takes one to two months to complete from the time personnel from TNB Energy Services Sdn Bhd assess all the equipment and processes, to proposing an action plan.

"It is a critical area which affects the overall energy demand and consumption. If industries can reduce the percentage of their energy consumption, it will help in reducing the national energy intensity."

"At industrial level, Energy Efficiency often involves a higher capital investment which is required to purchase more energy efficient equipment and machinery. While this may be somewhat seen as a set back, the return of investment over a specified period translates into the lower use of energy, greater efficiency, improved productivity and ultimately better profit margin."

This is also one of the reasons why new industrial operations today take Energy Efficiency into account prior to the construction of its facilities as this was the more cost-effective approach as opposed to re-investing to upgrade an existing facility.

On average, industries that embraced energy efficient measures or equipments in their plant and processes were found to have experienced energy savings of between 10% and 30%. ■

Energy Efficiency Services By TNB Energy Services Sdn Bhd



Established in 1997, TNB Energy Services Sdn Bhd offers a suite of customised services in relation to Energy Efficiency. These solutions are designed to offer energy cost savings to the energy consumer (owner), a more competitive product cost and a greener environment.

TNB Energy Services Sdn Bhd in its 2009/2010 Financial Year recorded a revenue of RM13 million, and moving forward, the company has already secured projects in 2011 that are worth in excess of RM100 million. The biggest undertaking in 2011 will be to establish 19 solar hybrid systems for schools in rural areas in a project commissioned by the Ministry of Education.

The company's services today include:

- **Energy Audit (EA) and energy efficiency solution**

Energy Audit is a study or survey to identify how energy is being used in a building or plant, and to identify opportunities for energy savings. In other words, it can be best described as a systematic search for energy conservation opportunities. Energy Audits are mainly performed on industrial customers and comprise of three categories: Preliminary Audit, Detailed audit and Investment Grade Audit.

- **Customer load profile studies**

Load profile studies is an energy monitoring activity to establish energy consumption of a building or plant or particular equipment during a period of time such as over one week or one month or one year.

- **Power factor improvement**

Low power factor indicates inefficiency of machines or electrical equipments which results in more electricity being required to perform its task. By increasing the power factor, the equipment will use less electricity to achieve the same results. This reduces the monthly bill and business owners can avoid paying the Power Factor Surcharge which TNB imposes should the power factor drops below 0.85. Depending on the type of loads, power factor can be improved by installing a capacitor bank or inductor banks.

- **Consultancy in energy management systems and Energy Efficiency solutions**

TNB Energy Services Sdn Bhd can provide consultancy on the implementation of energy saving measures especially on verification of savings.

Building automation system (sensors etc) – monitor energy consumption, optimise usage of energy through replacement of low efficient equipment.

- **Energy Efficiency awareness training program**

Awareness and training on how to save energy can be provided.

Dato' Sri Peter Chin Fah Kui Officiated the Launching of TNB Customer Charter



Dato' Sri Peter Chin Fah Kui, Minister of Energy, Green Technology and Water officially launched TNB's Customer Charter on Wednesday, 8 December 2010 at Wisma TNB Jalan Timur, Petaling Jaya. The Charter is one of the milestones in TNB's effort to continuously improve the quality of its services.

The Customer Charter which came into effect in January 2011 is the first revision of the contents of the original charter introduced in the early 1990s. It is implemented in conjunction with the new service standard introduced by the Energy Commission.

The Charter encompasses eight service focus areas namely Connection for New Electricity Supply, Change of Tenancy, Refund of Deposits, Billings, Counter Service, Customer Relations, Disconnection and Reconnection of Electricity Supply.

TNB Chairman, Tan Sri Leo Moggie in his welcome address said that the Customer Charter is a proof of TNB's commitment in providing transparent and efficient service.

"It is hoped that this Customer Charter can continue to strengthen the Company's excellence in line with TNB's Customer 1st Initiative" he said.

To ensure that the promised service performance is delivered efficiently, the implementation of the Customer Charter will be systematically monitored and value-added improvement will be introduced to enhance customer satisfaction.

Also present at the official launching were Chief Executive Officer of Energy Commission, Ir. Ahmad Fauzi Bin Hassan, TNB President / Chief Executive Officer, Dato' Sri Che Khalib Mohamad Noh and TNB Chief Operating Officer/Executive Director, Dato' Ir Azman Mohd. ■

TNB Recognised With Ethical Business Excellence Award

TNB received the Highest Recognition for the Large Companies Category at the Ethical Business Excellence Award 2010/2011 ceremony.

The award serves to identify, assess and give recognition to businesses which not only have a good code of business ethics in place but also practises and fosters a culture of excellent work ethics in their organisations while at the same time providing the best services to customers.

The Ethical Business Excellence Award 2010/2011 was held on 9 December 2010 for the third year - was organised by the Ministry of Domestic Trade, Cooperatives



and Consumerism in co-operation with the Companies Commission of Malaysia (CCM), Business Ethics Institute of Malaysia (BEIM) and the Malaysian Institute of Integrity (MII).

The award was presented by Dato' Sri Ismail Sabri bin Yaakob, the Minister of Domestic Trade, Cooperatives and Consumerism, to Dato' Ir. Azman bin Mohd, the Chief Operating Officer and Executive Director of TNB.

The assessment this year was based on 32 stringent criteria and aspects which among others included the organisation's commitment to operate in a transparent

manner at all times; ensuring the safety and welfare of all employees and customers are treated with fairness and sincerity; and that all complaints received are investigated immediately and where appropriate, fair solutions are formulated.

Of the 55 entries received, 12 companies from the 4 categories of awards for Micro Companies, Small Companies, Medium Companies and Large Companies received the Highest Recognition as companies that practised the culture of excellent work ethics in their respective organisations. ■

TNB Wins Asia's Best Employer Brand Awards



Tenaga Nasional Berhad received another international recognition by being conferred the Asia's Best Employer Brand Awards in conjunction with the Asia's Best Employer Brand Awards 2010 held at Suntec, Singapore in 2010.

This is the eighth award ceremony jointly-organised by the CMO Council, World HRD Congress, Employer Branding Institute, Stars of The Industry Awards and Fun and Joy at Work. It is also the first time the award was being held outside India.

Mr. Bhaskar Chatterjee, Secretary to the Government of India, Department of Public Enterprises, Ministry of Heavy Industries & Public Enterprises presented the Award to TNB's Dato' Muhammad Razif, Vice President, (Human Resource).

The Asia's Best Employer Brand Awards is in recognition of human resource practitioners and principal companies practicing employer branding in the Asian region.

The ceremony was attended by representatives from 24 countries, among them Australia, China, Hong Kong, India, Singapore, South Korea, Taiwan and the United Arab Emirates. The award by the World HRD Congress was decided via a nomination process conducted by peers and winners were selected by a jury appointed by the Congress. A Special Committee was appointed to conduct a survey on all nominated companies and the winner was determined by taking into account the achievements and the best practices in human resource management. ■



APACEEE 2010

As acknowledged by many, energy efficiency is a growing industry issue that has to be jointly addressed through integrated efforts by the utilities, end-users or customers, equipment manufactures, technology and service providers, consultants and regulators.

This Asia Pacific Regional Conference and Exhibition on Energy Efficiency or APACEEE 2010, held in Berjaya Times Square Hotel, Kuala Lumpur from 18th to 21st October 2010 and was organised by Pertubuhan CIRED Malaysia, intended to provide a platform for industry players including utilities in the ASEAN and Asia Oceania region to exchange information, knowledge and experiences related to energy efficiency ranging from demand response, power delivery system, smart grid, renewable energy sources, energy efficiency policies, regulatory issues, tariff structure and financing.

APACEEE 2010 theme, "Energy Efficiency for Sustainable Development", is most appropriate as the current global economic downturn and climate change are timely reminders of worse scenario to come if the global development is not sustainable. Moreover, a common understanding relating to energy efficiency issues are needed in considering multi-disciplinary technologies and affordable solutions to improve energy efficiency without damaging the environment.

Topics that have been discussed include Customer Experiences and Practices, Utilities Perspectives of Energy Efficiency, Smart Grid, Energy Efficiency Policies, Regulatory Issues and Roles of Regulations on Energy Efficiency, and Integrated Strategies for Energy Efficiency and Renewable Energy Sources. In conjunction

with APACEEE 2010, tutorials were also held on 18th October 2010 covering issues on EE & Demand Response and Smart Grid.

APACEEE 2010 paper presenters came from a good mix of background in the power industry that includes the government, the regulator, local and regional utilities, academics, solution providers, energy consultants, auditors and managers, manufacturers, researchers and EE practitioners and enthusiasts.

During the three-day conference, participants were presented with 40 high quality technical papers discussing on mainly on energy efficiency, renewable energy and smart grid.

In energy efficiency, participants were presented with the initiatives, concepts, challenges, researches and experiences in energy efficient buildings, labeling and rating of energy efficient household appliances, manufacturing tools and equipments, use of innovative material, the optimised placement and use of equipment and devices to improve efficiency in electrical energy transmission and distribution. Participants were also presented with studies and experiences on methods used to reduce losses while transmitting and distributing electrical energy to consumers.

Participants were also familiarised with smart grid and important components to ensure the success of smart grid implementations that include communications, smart meters and the need for system stability, reliability and quality.

Issues relating to renewable energy such the integrated strategies to harness and to generate renewable energy and the use of solar energy, biomass and waste material to expand the generation of RE into the grid were also presented to the participants.

A significant point that was made during the conference is that industries should look at energy efficiency and renewable energy as not only meant to reduce the impact of energy-related activities on the environment, but also as tools to improve competitiveness on products and services in the global market. Industries that are energy efficient can increase their profits whilst unburdening the consumer's budget significantly just by reducing the energy cost.

Another key point that was addressed is the need to promote efficient utilisation of energy and to minimise the negative impacts of energy production, transportation, conversion, utilisation and consumption of the environment as stipulated in the National Energy Policy. In all, it is the government's aspiration to ensure that Malaysians be energy efficient in our quest to be a high income economy both regionally and globally.

APACEEE 2010 also saw 12 organisations that took part as exhibitors to showcase their latest technological breakthroughs and innovative solutions in dealing with energy efficiency issues for all to evaluate, deliberate and eventually implement in their organisations towards a greener Malaysia. ■



Shell Malaysia Your Partner in Progress

Shell Malaysia is a member company of the Royal Dutch Shell Group. With over a century of history and presence in the country, Shell Malaysia aspires to be the "Top Performer of First Choice" by operating our businesses efficiently, responsibly and profitably.

Our business activities in Malaysia are Upstream, Downstream, and Projects & Technology. We also provide an increasing range of technical, human resources, financial and business support services and expertise to the Shell Group via the Shell Business Service Centre in Kuala Lumpur and Cyberjaya.

Shell is the petroleum retail market leader in Malaysia, catering to one-third of Peninsular Malaysia and half of Sabah and Sarawak's market requirements. Apart from one of the country's largest networks of retail stations, our operations also include the world's first commercial gas to liquids plant of its kind in Bintulu, Sarawak, and a refinery in Port Dickson, Negeri Sembilan. Under production sharing contracts with PETRONAS, we are the largest natural gas producer in Malaysia.

We seek to sustain a long-term presence in Malaysia through pursuing high standards of product quality and service performance; striving to meet the expectations of stakeholders, and contributing to the nation's economic growth and progress. This year, we celebrate the 100th anniversary of having discovered the country's first oil on Canada Hill, Miri, Sarawak.

In July 2010, Shell Malaysia hosted the inaugural Shell Eco-marathon Asia in Kuala Lumpur. The event is an educational project that challenges students to design and build energy efficient vehicles that travel the farthest distance using the least amount of fuel.

Visit www.shell.com.my. ■



TNB and NATCO of Yemen Signs LoU For Collaboration In Power Industry

Tenaga Nasional Berhad (TNB) signed a Letter of Understanding (LoU) with National Trading Company (NATCO) of Yemen to explore joint cooperation in various areas of the power industry in Yemen.



The possible areas eyed by the two companies are power generation and distribution; training; system planning; design, project management and development; system operation; and system maintenance.

The LoU is also a stepping stone for both parties to establish a business alliance and also serves as a platform for both TNB and NATCO to market technical services and thus diversify their revenue.

The LoU was signed between Mr Fouad Hayel Saeed and TNB President / Chief Executive Officer, Dato' Sri Che Khalib Mohamad Noh. It was witnessed by the Ambassador of Yemen, Mr Abdulla Mohamed Ali Al-Montaser, Chairman of TNB, Tan Sri Leo Moggie and Chief Executive Officer of Asian Finance Bank, Datuk Mohamed Azahari Kamil.

Tan Sri Leo Moggie in his speech said: "As part of TNB's geographical expansion, we are continuously exploring other opportunities that could potentially lead to partnerships and cooperation with international counterparts in the utility services."

The collaboration with NATCO will allow TNB to build its track record in providing technical services to potential Middle East and OIC countries, besides helping to enhance the technical capabilities of its experts, he said.

"In this regard and in order for TNB to effectively penetrate the Yemen market, a strong and reputable partner such as NATCO will be necessary to navigate the local environment," added Tan Sri Leo Moggie.

Meanwhile, Director of Hayel Saeed Anam (HSA) Group (the Parent Company of NATCO), Mr Fouad Hayel Saeed said the areas of cooperation underlined in the LoU were crucial in boosting the industrial development of Yemen.

"TNB with its vast project experiences in power generation can provide a major contribution in this sector to meet the power generation requirements of Yemen," he added.

About NATCO

NATCO, a wholly owned subsidiary of HSA Group of Companies, is one of the largest and most successful trading and contracting companies in Yemen. Its business units comprise of six independent divisions that include automotive, fast moving consumer goods, pharmaceutical, information technology, electro-mechanical and home appliances. ■



SMART UPJKL Team Wins ICQCC 2010 Competition

While the Malaysian contingent was busy chasing gold medals at the New Delhi 2010 Commonwealth Games in India, the SMART UPJKL Team was at the International Convention Quality Concept Circle (ICQCC) in Hyderabad, also in India from 12 to 15 October 2010 and returned with the Gold Award won at the ICQCC 2010 competition.

This annual convention serves as a platform for participating countries to share experiences, exchange views, present innovation creations as well as discuss on how to improve the work quality of productivity management. 12 countries namely Malaysia, Thailand, the Philippines, Singapore, China, Japan, Bangladesh, Sri Lanka, Indonesia, Taiwan, South Korea and India as this year's host, took part in the convention which was themed "Develop People for a Better Tomorrow".



A total of 448 teams and 2,758 participants took part in the convention. Malaysia was represented by 18 teams numbering 115 participants. The Malaysian contingent won a total of 14 gold and 5 silver awards including the one by the SMART UPJKL team. The team produced the Link Test Terminal Block Protector which functions as a protection and prevention device against theft of electricity by consumers.

The SMART UPJKL team was led by Haji Mohd Ali Mungai from the Productivity and Quality Management Department who also doubled up as the Head of the Contingent. Other team members were Mohd Fauzi Mohd Ismail – Facilitator, Mohd Roshidi Hashim – Team Leader, and team members Zakaria Abd. Sani, Jaliana Jaafar Sidek, Mohd Fadzil Mohd Zain, Mohd Shaddy Zakaria, Mohd Hiruan Ramlee and Shamlan Yahaya.

The company wishes the entire Malaysian contingent well done and our heartiest congratulations to the SMART UPJKL on their success. ■



Chinese Delegation Calls on TNB

The National Energy Administration (NEA) of the People's Republic of China headed by its Administrator Mr. Liu Qi, on 15 October 2010 made a working visit to TNB's Headquarters in Kuala Lumpur.

The working visit, proposed by the Ministry of Energy, Green Technology and Water, was to discuss cooperation between Malaysia and China in the energy sector with a special emphasis on highlighting TNB's initiatives in sustainable development of the energy industry.

TNB Vice President (Planning) Datin Roslina Zainal delivered a welcome address, while Tuan Haji Yusof Rakob, General Manager (Planning and System Development), Planning Division later conducted a briefing on the history and the day to day business operations of TNB, followed by an overview on the development of the energy industry. ■



Dato' Hj Mohd Zahir bin Md Nagor flanked by Mr. Lee Kwee Soon, Deputy General Manager YTL, Perak and Tuan Hj Mohd Rozali bin Yusof, TNB Area Manager, Kuala Kangsar.

PERAK STATE GM VISITS PERAK'S LARGEST POWER CUSTOMER

Perak State General Manager, Dato' Hj Mohd Zahir bin Md Nagor paid a visit to YTL Kuala Kangsar in Perak on 13 January 2011. This is part of the series of visit to the premises of PRIME customers for Financial Year 2010/2011. He was accompanied by Hj Mohd Rozali bin Yusof (TNB Area Manager for Kuala Kangsar), Salbiah binti Subari (Assistant Manager, Public Relations Perak), Mohd Firdaus bin Zainal (Assistant Manager, Customer Service and Marketing, Kuala Kangsar), Syarullizam Mohd Rozali and Mohd Sayuti bin Abd. Samat.

YTL which was formerly known as Perak Hanjoong Simen Sdn. Bhd. is involved in cement processing and targets both local and Singapore markets. The factory which is situated in Kuala Kangsar used local raw materials such as limestone and clay in cement processing. YTL consumes electricity supply of 132kV with bill exceeding RM5 million per month.

During the visit, the customer expressed satisfaction with the services provided by TNB and recorded their appreciation for being accorded Special Industry Tariff. However, they expressed the hope that TNB could share expertise for the 132kV system such as providing maintenance service for transformer as well as involving customers in its technical seminars.

In response, TNB expressed appreciation to YTL for hosting the visit by the delegation and by being a good pay master. ■

Dato' Hj Mohd Zahir bin Md Nagor presenting a memento to Mr Lee Kwee Soo, Deputy General Manager YTL, Perak.



ENERGY EFFICIENCY energy audit



There is a strong need and large opportunity energy efficiency in the country. The task requires energy audit whereby it provides the initial stage assessment into proposing the essential steps towards savings potential and improvement in the methodological framework for efficient use of energy. TNB Energy Services Sdn. Bhd. has conducted few audits to achieve the above objectives at industries, hotels and commercial buildings. Apart from this, energy efficient technologies can be introduced to significantly reduce greenhouse gas emissions. The audits would provide beneficial information to the customers.

Project Description

i) Energy Audit Flowchart



ii) Our Offer

- (a) an energy efficiency service to companies,
- (b) help our clients to investigate energy consumption,
- (c) assess opportunities for energy savings, and
- (d) to compile and execute a plan of action to achieve significant savings.

iii) Our Aim Is To Help Customers Determine

- (a) how energy is consumed and cost,
- (b) how to save energy,
- (c) what it will cost, and
- (d) how much they will save.

NATIONAL ENERGY EFFICIENCY AWARENESS CAMPAIGN

Remember, load your washer fully each time!

Guys, iron many clothes at the same time. Energy is wasted as the iron reheats!

Boil only the amount of water that you need. Reheat the water is wasting electricity.

Don't open the fridge door frequently to prevent cold air from escaping!

Switch to CFLs for indoor lighting. They can save up to 75% of energy and last 10 times longer.

You don't need to set your air conditioner's temperature too low! Set it to 24-26°C to be comfortable.

Shut off doors and windows while air conditioner is on to reduce cold air from escaping.

If you can, use laptops instead of desktops. It uses less energy!

Some says that standby power is the vampire of electricity! Turn off and unplug your appliances when you are not using.

Hey guys! Do you know that flat screen TV uses less energy than CRT?

Dear friends, these are some actions that you can do to be more energy efficient, just like me!

www.switch.org.my

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