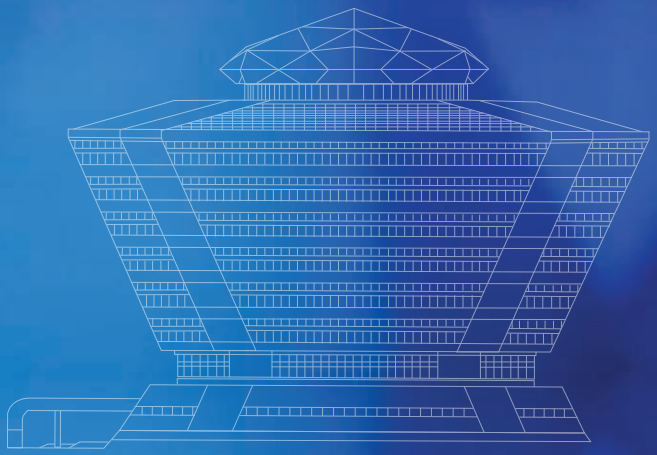
Suruhanjaya Tenaga



ANNUAL REPORT 2008

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ENERGY COMMISSION

ANNUAL REPORT 2008

The Energy Commission Annual Report 2008 is submitted to the Minister of Energy, Green Technology and Water in accordance to Section 33(3) of the Energy Commission Act 2001 which stipulates that "the Energy Commission must present a copy of audited account statement and a copy of the auditor's report to Minister of Energy, Green Technology and Water to be tabled in Parliament along with a copy of the Energy Commission's activity report for the previous financial year."

STRIKING AN EQUILIBRIUM BETWEEN CONSUMER AND ENERGY PROVIDERS INTEREST

CHAIRMAN'S STATEMENT

DATO' Ir. PIAN BIN SUKRO
Chairman

"The Commission is continuously consulted for its input and views in matters pertaining to the restructuring of natural gas subsidy price and the review of electric and piped gas tariff."

The year 2008 has been an eventful year filled with uncertainties. The change in the world oil prices which had increased drastically during the first half of the year reaching its highest price of USD147.70 per barrel on July 11, 2008, ensued by the global economic crisis leading to the spiralling down of fuel prices gave rise to uncertainties as Malaysia is not left unscathed by its impact. The national economic growth declined to 4.6% in 2008 compared to 5.2% in 2007.

The turmoil caused by the global fuel price poses a monumental challenge for the Commission to fulfil its advisory duties to the government, this in addition to focusing its effort to regulate and ensure that the provision of electricity and gas supplies remain reliable, safe and efficient. Concurrently, the Commission is embarking on an initiative to create awareness on the critical need to reform the prices of energy, market structure and the governance of the energy sector as we strongly believe that the change in policy will bring forth a positive impact to our beloved nation.

The increase of fuel price triggered a huge impact on the amount of subsidy borne by the government. Hence, the government initiated the subsidy restructuring initiative on petrol and diesel applicable to the land transportation sector. Followed by a subsidy restructuring process for natural gas applicable to the energy sector within Peninsular Malaysia that was duly implemented in June and July 2008. The prices for natural gas for the power generation sector and non-power generation sector has increased from 91.38% to 123.59%. The government has decided and instructed for these prices to be reviewed annually in tandem to the government's aspiration to gradually reduce the provision of subsidy towards achieving the standard market rate within a stipulated time frame.

The Commission and related parties have been promoting the reformation of the energy process within the industry for the past several years. The gas price for the power generation sector, which was fixed at RM6.40 per mmBtu since 1997, does not encourage the industry to be more efficient. Furthermore, gas is a premium fuel that should be used for value added activities.

The Commission closely monitor the changes in global oil price and carried out detailed analysis on its impact on the cost of supply for fuel consumed by the power generation and non-power generation sector. The increase in the crude oil prices had not only aggravated the prices of gas in Malaysia but had also brought on changes to the prices of other fuel sources including coal, liquid natural gas and medium fuel oil. In addressing this matter, the Commission took part in a discussion with the Economic Planning Unit, the Ministry of Energy, Water and Communication and at the Efficient Usage of Energy Resources Committee that reports directly to the National Economic Council chaired by the Prime Minister.

In short, the Commission is continuously consulted for its input and views in matters pertaining to the restructuring of natural gas subsidy price and the review of electricity and piped gas tariff. The Commission's decisions at all time is aimed towards balancing the interest between consumers and the utility companies, in line with the regulations enforced. All inputs and views of the Commission are made based on detailed analysis and are not partial to any parties. The Government in June and July 2008 has announced the new structure of the electricity and piped gas tariff.

Simultaneously, the government receives mounting pressure to force Independent Power Producers to also contribute to the electrical sector and help reduce the burden faced due to the increase in fuel cost. Independent Power Producers are seen as unaffected by the fuel cost increase and is said to generate profit more than market returns. Thus is line with the restructuring of the gas subsidy, the Government has decided to implement an enactment under the Windfall Profit Levy Act 1998 onto the Independent Power Producers, as part of their contribution to offset the increase of fuel cost in electricity generation.

The Commission anticipates that financial market would react positively to this decision due to its implications on the bond values of the independent power producers companies that are funded via issuance of bonds. Finally, the Government retracted the decision and instructed the Independent Power Producers to make a one-off contribution in place of the Windfall Profit Levy.

In this matter, I sincerely believe that should the renegotiation of Power Purchase Agreement helmed by the Commission in 2007 were mutually agreed by all parties involved, this issue would not have occured. However, I am thankful that the Commission has successfully sailed through the challenges posed within the energy sector sector and in fact was able to conduct researches and advise the Government on the problems and challenges faced by the national energy sector.

Apart from price reformation, the Commission also believes that the reformation of market structure and the governance of the energy sector should be undertaken by the Government. Through discussions with various parties be it via the Energy Consultative Panel, forum and seminars, the idea was duly mooted and supported. Besides implementing the Preliminary Assessment on the Introduction of a Competitive Electricity Market to assess the needs, readiness and acceptance to form a more competitive electricity market, the Commission has also given inputs obtained from studies conducted on the energy structure reformation by Khazanah Nasional and the review of the National Energy Policy by the Economic Planning Unit.

The Commission is of the opinion that streamlining the functions and responsibility of the energy agencies in the country and the formation of a certain mechanism such as the stabilisation fund is to be considered as part of an effort to overcome key issues and reform the nation's energy marketing structure and administration. On the Energy Blueprint report, which had received negative response, I believe several recommendations such as certification on energy management, energy data management, organisation of a more structured research program and strengthening of the enforcement and administrative activities must be emphasised by the relevant parties.

In our effort to achieve the objective of an effective enforcement capability to ensure that electricity and gas are being supplied in a reliable, safe and efficient manner, the Commission will give priority and focus on these key areas:

- Ensure that there are adequate electric and gas supply;
- To continuously improve enforcement capability by enhancing operational effectiveness, delivery of service and product quality;
- Enhances the operational effectiveness and efficiency and service delivery.

Throughout 2008, the plans towards ensuring the adequacy of electricity supply to meet demands has been implemented by the Commission and tabled in the Electricity Supply and Tariff Implementation Planning Committee (JPPPET) meeting. The periodical review of the plan focuses on the need for additional capacity in view of the current reserve margin, the growth of demand for electricity, fuel sources, fuel cost increase, the decommissioning of existing power plants and others. The increase in fuel cost, dwindling of the gas and coal resources and issues pertaining to Bakun power project are amongst the key issues that constantly became a focal topic in 2008. The Commission also gave advise on ways to overcome problems of power shortage and instability of electrical supply remains as the main issue in Sabah throughout 2008.

Due to the Commission's meticulous monitoring system, a power supply crisis caused by insufficient supply of both gas and coal has been avoided in February 2008. An urgent meeting was called upon with the Grid System Operator and TNB Fuel Sdn. Bhd. to amicably resolve the issue on the shortage of coal supply. A discussion was also held with PETRONAS on the issue of gas supply in which a rescheduling for gas supply delivery was called upon. As a result from discussions and consultations led by the Commission with Grid System Operators, power plants, TNB Fuel Sdn. Bhd. and PETRONAS, effective measures were taken to manage the situation and to ensure that supply interruption to consumers does not occur during that period.

Since the security of power supply became the main agenda, the Commission initiated a meeting with the Indonesian Government to discuss on the issue of coal supply. In November 2008, a delegation headed by the Energy, Water and Communication Minister with its officers and the Commission, visited Indonesia with the main objective of improving cooperation between both Governments especially in the coal supply aspect, electricity supply to Kalimantan and grid connection between Sumatera and Peninsula Malaysia. Resulting from this meeting, a review on the price of coal by TNB Fuel Sdn. Bhd. with the Indonesian suppliers, was agreed upon in the final quarter of 2008.

The supply of natural gas for the power plant and non power plant sectors were also affected in 2008. The Commission worked closely with PETRONAS to attain the factual scenario of the natural gas situation in Peninsula Malaysia. Demand for natural gas from the two sectors had exceeded the production of natural gas in Peninsular Malaysia and the supply of natural gas from West Natuna, Indonesia and Malaysia-Thailand Joint Development Area. Due to the limited supply, Gas Malaysia Sdn. Bhd. (GMSB) halted all natural gas pipeline infrastructure development projects starting from end 2005 till to date and rejected all new application for the acquisition of natural gas. This impacted investment into the country and the Commission had initiated discussions with PETRONAS, GMSB and other parties including MIDA.

Throughout 2008, in order to improve the regulatory aspect and increase operational efficiency, delivery of service and quality of supply from the utility sector, the Commission implemented the following measures:

- Implementing a different approach in the Management and Engineering Audit on two key utilities, which are GMSB and Tenaga Nasional Berhad (TNB) in order to enhance the credibility of audit results. For the audit on GMSB, the Commission administered the appointment of a consultant and the audit was conducted according to the terms stipulated by the Commission. This process was different from the previous audit where the appointment of consultants and method of audit are determined by the licensee. Price water house Coopers Advisory Services Sdn. Bhd. completed the audit for GMSB in 2008. For the Management and Engineering Audit on TNB, the Commission had been directed by the Minister to undertake the audit with the cost funded by TNB. The preparation to issue a new tender was completed at the end of 2008 and the audit will take place in 2009;

- Imposing a ruling of separate account for different licensed activities such as power generation, supply and distribution in tandem to the licensing regulation issued by TNB. This course of action is considered as

a basic requirement needed to implement economic prudence that would determine and regulate power generation, delivery and distribution cost; and

- Preparation of guidelines and circulars that would enhance electrical safety regulation, especially activities involving the installation of electrical coupler and gates. It outlines detail methods on an accurate, safe and proper wiring that would functions well.

In totality, I am very proud with the Commission's overall achievement and performance in year 2008 that duly gave focus to enhance and strengthen the economic, technical and safety regulations. However, there are still several initiatives undertaken by the Commission in 2007 that could not be implemented in 2008. These initiatives are considered as important as its implementation would specifically and effectively improve the Commission's capability to regulate electricity supply and safety. Some of the main initiatives mentioned includes:

- The review of the Electricity Supply Act 1990 and the Regulations stipulated under it. The Commission has presented a draft proposal of a new regulation for Electricity Regulation Bill to replace the Electricity Supply Act 1990 with the introduction of a new stipulation for electricity licensing, supply and safety. Up to end of 2008, the draft was still under process review and policy restructuring at the KTAK level;

- The enforcement of the new Grid Code and Distribution Code that are still pending as no decisive conclusion can be achieved on its industry regulations and structure; and

- The legislation of the new standard would involve imposing a penalty fee to consumers and is expected to create an even bigger impact once implemented. Its implementation is still placed on hold as no consensus on its penalty or compensation payment methodology can be achieved.

I really do hope that these initiatives would be resolved, concluded and implemented in 2009. The Commission expects that 2009 will pose a bigger challenge as the people are placing bigger and higher hope on the Government and the authorities. In the energy management aspect, with the enforcement of the Efficient Management of Electrical Energy Regulation 2008 (EMEER) on December 15, 2008, the Commission is now facing an even bigger challenge in managing energy usage.

Year 2009 is expected to be full of uncertainties due to the global economic crisis, which is forecasted to worsen. This would surely put pressure on regulatory bodies to be on their toe and to perform diligently, effectively and efficiently. Heading towards this objective, the Commission took and lead the initiative to assemble all the energy organisations in our country to be placed under the Energy Council of Malaysia (ECOM) or *Majlis Tenaga Malaysia* that was duly registered on July, 2nd 2008. ECOM has been established to serve as a patron that would take the leading role and spearhead all the various energy organisations and institutions within the country that carry different interests and act as an informal discussion platform for these bodies. I am pleased that the Commission together with ECOM managed to successfully organise the Electricity Summit 2008 on June, 17-18th 2008. The two (2) day conference saw the participation of over 300 delegates, that rally together to identify, discuss and deliberate on current issues related to the electricity supply industry in Malaysia and also acknowledge the challenges faced by the industry and counsel on methods to amicably resolve these challenges.

The Commission hopes to receive strong support, cooperation and commitment from our precious human capital as well as the energy industry players. We are well aware of our responsibility to critically enhance operational effectiveness and efficiency that the industry players have hoped for. On this note, the Commission took the initiative to conduct studies that would improve management processes, increase human capital acquisition and continuously engages in capability building programs that would enhance our performance to fulfil demands from parties with interest. To attract highly competent employees, the Commission has enforced the new Service Terms and Condition on January 1, 2008.

As an organization, the Commission must be skillful, with well-equipped facility and resources to fulfill its functions and responsibility. Towards that end, we have made enough investment in resources to develop our employee's skills and capability. Current cooperation with regional organisation such as Energy Regulators Regional Association (ERRA), East Asia and Pacific Infrastructure Regulators Forum (EAPIRF) will be continued in the economic regulation training area. In the local front, due to its strong relationship with the National Institute of Public Administration or INTAN, the management of the Commission has been invited to attend the Advanced Management Development Program organized by INTAN and the Harvard Club of Malaysia. It is our hope to create a competency framework, which will serve as a guideline in developing our employee's capability in their leadership, management and operational scope of work.

I am mindful that we would not be able to achieve what we have accomplished in 2008 without the collaborative effort from the Commission Members and management team that have openly shared precious experience, counsel and unwavering dedication. I would like to express my sincere appreciation to the insightful leadership and support from our two (2) Ministers namely; Ministry of Energy, Water and Communication; Tun Dr. Lim Keng Yaik, former Minister of Energy, Water and Communication and also YB Datuk Shaziman Abu Mansor. In conclusion I would like to seize this opportunity to express my deepest appreciation to all the Government Agencies especially to the employee of the Commission.

DATO' Ir. PIAN BIN SUKRO

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TO STRENGTHEN THE ECONOMIC AND SAFETY REGULATIONS

CORPORATE INFORMATION

Vision

The Commission strives to be the prominent regulatory body with an outstanding and highly credible authority within the energy sector.

Mission

The Commission aspire to strike a balance between consumer and energy provider needs to ensure a reliable, consistent and safe supply of energy at a reasonable rate; to protect public interest and promote competitive market and economic development in a secured environment.

Key Values

- Excellence
- Reliability
- Sense of Fairness and Fairplay

Client's Charter

The Commission is committed to the following:

- To set up a dynamic and progressive regulatory system that encourages the development of the electricity and gas industry.
- To carry out on-going services in electricity and gas supply regulation that protects the consumer's interest;
- To carry out effective legal enforcement; and
- To provide efficient and hospitable regulatory service within the stipulated time frame in the processing of license and authorisation letter issuance.

ROLES **AND FUNCTIONS**

The Commission bears the responsibility to govern and enforce the energy supply regulations and simultaneously promotes a continuous and sustainable development within the energy industry.

The Commission is also responsible to ensure adequate, safe and reliable supply of electricity and piped gas at reasonable rate while promoting energy efficiency.

Specifically, the Commission's functions and jurisdiction as stipulated within the Energy Commission Act 2001 are as follows:

a) To advise the Minister on all matters pertaining to the national policy objective for energy supply activities;

b) To advise the Minister on any matters pertaining to transmission, distribution, supply and the use of electricity as allocated under the electricity supply regulation;

c) To advise the Minister on matters pertaining to piped gas supply and the usage of gas as allocated under the gas supply regulation;

d) To implement and enforce energy supply laws;

e) To regulate any hazards related to the electricity supply industry and to protect any persons from any dangers arising from the generation, production, delivery, distribution, supply and use of electricity as stated under the electricity supply regulation;

f) To regulate all matters related to the supply of gas via pipelines and protect any individuals from any risk that might rise due to the supply and use of gas using these pipelines as stipulated under the gas supply regulations;

g) To promote efficiency, economic prudence , and safety in the generation, production, delivery, distribution, supply and use of electricity and in supply and use of gas via pipelines;

h) To promotes and protects the administration of a fair and efficient market conduct and competition, or in the absence of a competitive market, to prevent abuse due to market monopoly or market dominance over the generation, production, delivery, distribution and supply of electricity and supply of gas via pipelines;

i) To encourage the use of renewable energy and the saving of non renewable energy;

j) To encourage research, development and application of new techniques related to:

   (i) Generation, production, delivery, distribution, supply and use of electricity; and

   (ii) Supply and use of gas supplied via pipelines;

k) Promotes and induce development for the electricity supply and gas supplied via pipeline industry including advancement in the field of human capital training;

l) To encourage and promote self regulation in the electricity supply and piped gas industry;

m) Execute any duties and functions conferred upon or stipulated under the energy supply regulation;

n) review and revise energy supply law and regulations and to provide necessary recommendations to the Minister; and

o) To perform any activities found needed and beneficial by the Commission, with respect to the implementation of its functions under the electricity supply regulation.

ENERGY COMMISSION MEMBERS

From Left:

Chairman

Dato' Ir. Pian Bin Sukro
Licensing Joint Committee (Management and Energy Commission) - Chairman
Energy Commission Services and Establishment Committee - Chairman

Members:

Datuk Awang Bin Haji Samat
Finance and Tender Committee - Chairman
Energy Commission Services and Establishment Committee - Member

Dato' Ir. Engku Hashim Al-Edrus
Licensing Joint Committee (Management and Energy Commission) - Member
Energy Commission Services and Establishment Committee – Member

Academician Dato' Ir. Lee Yee Cheong
Finance and Tender Committee - Member

Encik Muri Bin Muhammad
Finance and Tender Committee - Member

Miss Loo Took Gee
Licensing Joint Committee (Management and Energy Commission) - Member

Dato' Dr. Ali Bin Hamsa
Appointed as a Member representing the Government effective on December 1, 2008 until November 31, 2011

DATO' IR. PIAN BIN SUKRO
Energy Commission Chairman

ENERGY COMMISSION MEETINGS

Energy Commission Meetings

No.	Date	Energy Commission Meetings	Venue
1.	January 15, 2008	Meeting ST No. 1/2008	Butterworth Regional Office
2.	January 31, 2008	Meeting ST No. 2/2008	Headquarters
3.	February 25, 2008	Meeting ST No. 3/2008	Headquarters
4.	March 25, 2008	Meeting ST No. 4/2008	Headquarters
5.	May 12, 2008	Meeting ST No. 5/2008	Headquarters
6.	June 19, 2008	Meeting ST No. 6/2008	Headquarters
7.	July 29, 2008	Meeting ST No. 7/2008	Headquarters
8.	September 9, 2008	Meeting ST No. 8/2008	Headquarters
9.	September 26, 2008	Special Meeting ST No. 1/2008	Headquarters
10.	November 20, 2008	Meeting ST No. 9/2008	JW Marriot Hotel, Putrajaya
11.	December 18, 2008	Meeting ST No. 10/2008	Headquarters

Finance and Tender Committee Meeting

No.	Date	Finance and Tender Committee Meeting
1.	March 24, 2008	JK&LT No. 1 Year 2008
2.	May 8, 2008	JK&LT No. 2 Year 2008
3.	July 29, 2008	JK&LT No. 3 Year 2008
4.	December 17, 2008	JK&LT No. 4 Year 2008

Licensing (Management & Energy Commission) Joint Committee Meeting

No.	Date	Licensing (Management & Energy Commission) Joint Committee Meeting
1.	January 4, 2008	JKBP(P&ST) No. 1 Year 2008
2.	February 12, 2008	JKBP(P&ST) No. 2 Year 2008
3.	March 17, 2008	JKBP(P&ST) No. 3 Year 2008
4.	July 10, 2008	JKBP(P&ST) No. 4 Year 2008
5.	October 28, 2008	JKBP(P&ST) No. 5 Year 2008

Services and Employement Committee Meeting

No.	Date	Service and Employement Committee Meeting
1.	July 1, 2008	JKP&P No. 1 Year 2008
2.	August 12, 2008	JKP&P No. 2 Year 2008
3.	December 18, 2008	JKP&P No. 3 Year 2008

ENERGY COMMISSION
MANAGEMENT TEAM

DATO' Ir. PIAN BIN SUKRO
Chairman

Ir. AHMAD FAUZI BIN HASAN
Chief Operating Officer

PUAN MURTADZA BINTI MOHD KASIM
Director (Support Services Department)

Ir. AZHAR BIN OMAR
Director (Electricity Supply Regulation Department)

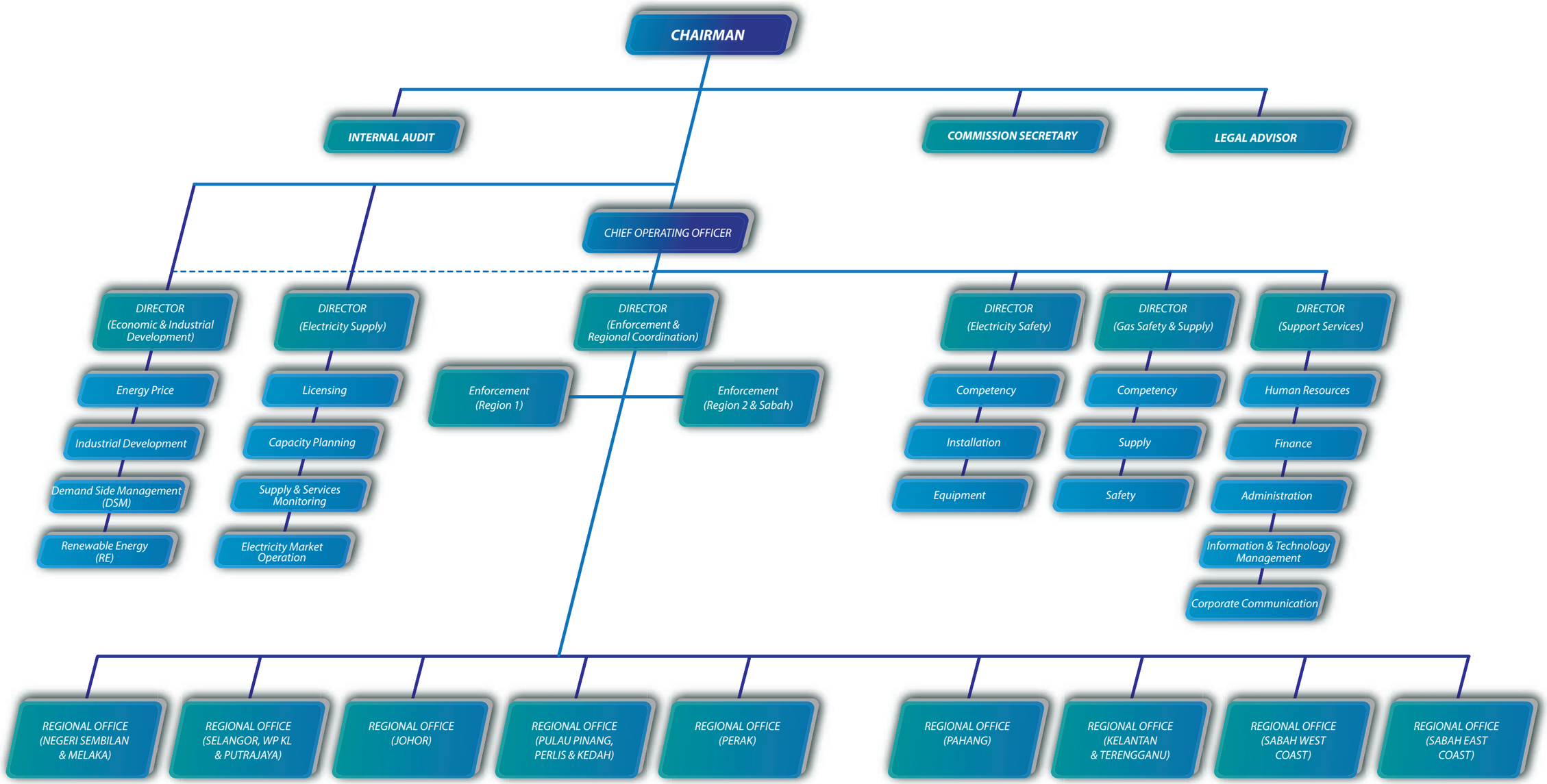
Ir. OTHMAN BIN OMAR
Director (Enforcement and Regional Coordination Department)

Ir. ISMAIL BIN ANUAR
Director (Electricity Safety Department)

Ir. FRANCIS XAVIER JACOB
Director (Economic Regulation and Industrial Development Department) – COMMENCING October 16, 2008. Before this, he was the Director of Gas Safety and Supply Department begining January 1, 2008.

DR. SULAIMAN BIN ABDULLAH
Director (Gas Safety and Supply Department) – COMMENCING October 16, 2008.

ORGANISATIONAL STRUCTURE



Milestone / Significant EVENTS

2001

- The Commission was established under the Energy Commission Act 2001, on May 1, 2001.
- The Commission formed its first organisational structure on September 1, 2001.

2002

- The Commission took over the functions of the Department of Electricity Supply and its responsibilities under related Acts and Regulations on January 2, 2002. The Commission commenced regulatory operations on January 2, 2002.

2003

- The Commission re-located to Menara TH Perdana office building in April 2003.
- The Commission set the strategic direction for its Corporate Plan 2003 - 2005, Vision, Mission and Core Values.
- The Commission introduces the benchmark for the Malaysian Electricity Supply Industry (MESI).

2004

- The Commission embarked on a grid system performance review in Peninsula Malaysia.
- The Commission led a Malaysian delegation at the ASEAN Electrical And Electronic Mutual Recognition Agreement (ASEAN EE MRA) meeting.

2005

- The Commission led the Energy Consultative Panel to mobilize partnership between industry stakeholders in the energy sector.
- The Commission reviewed the Electricity Tariff.
- The Commission introduced a plan for the construction of a sustainable building in Putrajaya via an MoU on September 2005.

2006

- The Commission reviewed its organisationalstructure in tandem with the current development taking place and according to the growth requirement for the nation's energy industry.
- The Commission reviewed the electricity and piped gas regulatory regime.
- The Commission undertook a comprehensive review on the financial and technical performance of Independent Power Producers.

2007

- The Commission initiated the construction of a Diamond Shape headquarter, designed with energy efficient and sustainable features on Lot PT 7556, Presint 2, Putrajaya in June 2007.
- The Commission embarked on the Energy Blueprint research in September 2007.
- The Commission reviewed the terms and conditions of its personnel and launched its new Vision, Mission and Core Values.

2008

- The Commission formed its ninth regional office, which is the Melaka and Negeri Sembilan regional office.
- The Commission prepared a draft on the Electricity Law Bill to replace the Electricity Supply Act 1990.
- The Commission prepared the Grid Code and the Distribution Code for the electricity supply sector.
- The Commission led the formation of the Energy Council of Malaysia on July 1, 2008.
- The new Terms and Conditions of Employee Service was implemented.

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TO ENSURE RELIABLE, SAFE AND EFFICIENT ENERGY SUPPLY

ENSURING RELIABLE AND SUFFICIENT **ENERGY SUPPLY**

ELECTRICITY SUPPLY

Peninsular Malaysia

Up to December 31, 2008 the readily available open power generation capacity in Peninsular Malaysia remains at 19,723 MW due to the absence of a new capacity provider. The maximum demand posted by the grid system marked an increase from 13,620 MW in 2007 to 14,007 MW in May 28, 2008. The highest daily output of 286.9 GWj was recorded in May 2008, while the highest monthly output was also recorded in May 2008 with 8,374.97 GWj generated. The reserved margin is expected to remain at the highest level, due to uncertainties in demand which is influenced by the global economic situation.

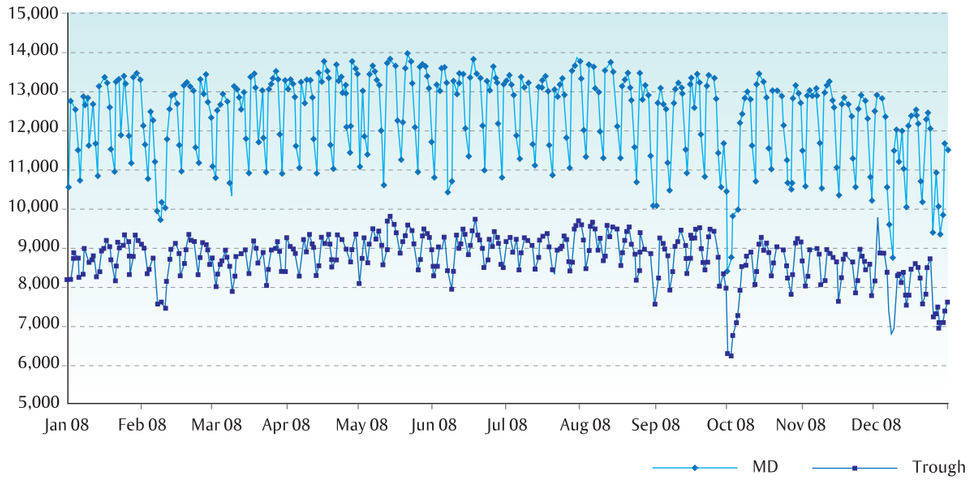


Chart 1: Daily Profile for Maximum Demand and Trough

Throughout 2008, almost 64% of the generated output comes from gas, 29% from coal and the remaining from hydro power. This is due to the dispatching principles of the power plants that were based on the gas prices fixed by the Government that is lower compared to the market rate. Although gas price for the power plant sector has been increased, uncertainty on coal supplies saw its price rising from the normal rate.

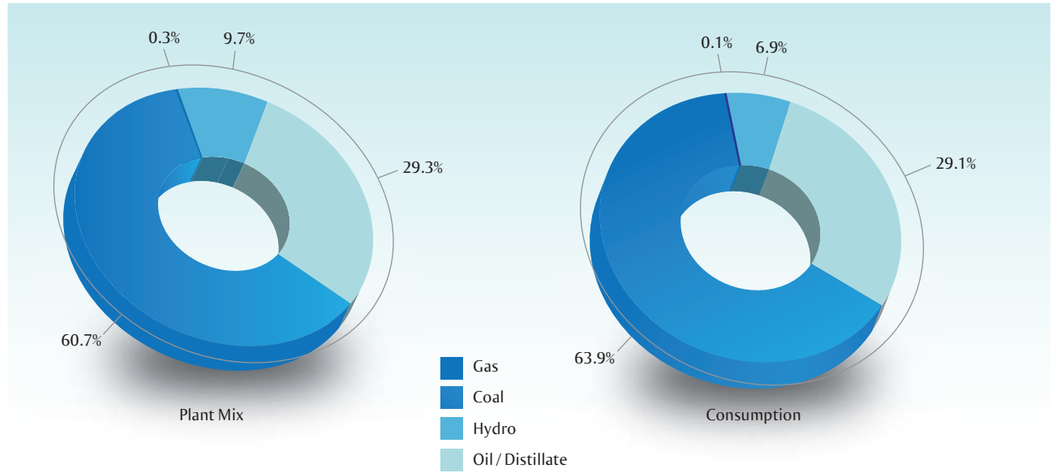


Chart 2: Breakdown of Fuel Consumption for 2008

The Commission conduct constant monitoring to ensure that the consumption of fuel such as gas is conducted efficiently. Reports are being requested from Grid System Operators regularly when a recycle open gas power plant operations are being conducted on a high number of days at a substantial amount for a long period of time as one case that occurred in May 2008.

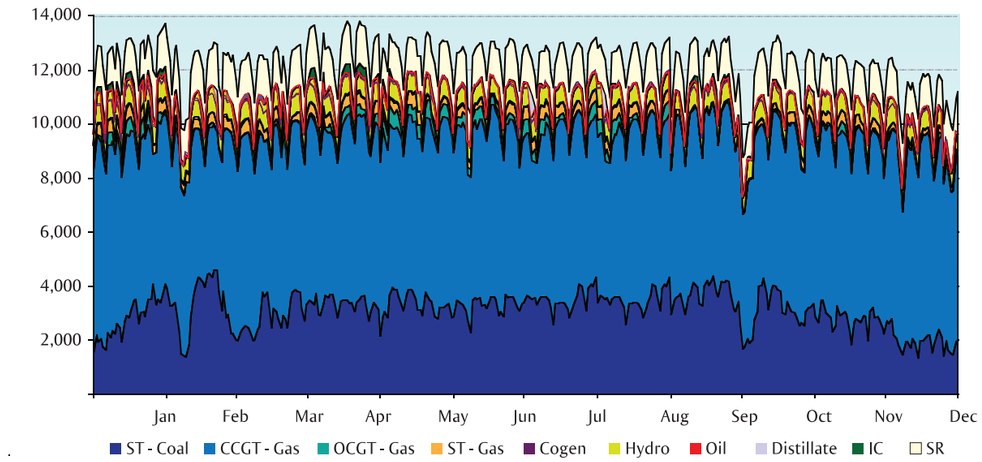


Chart 3: Daily Output Profile (Peninsular Malaysia)

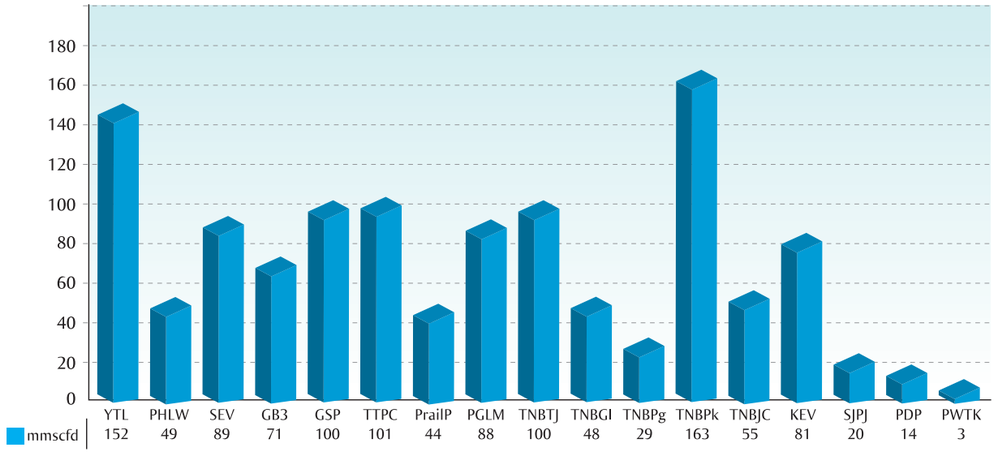


Chart 4: Average Power Plants Gas Consumption Throughout 2008

Throughout 2008, most of the power plants in Peninsular Malaysia were operating in a satisfactory manner. The power plants average *Availability* stood at 89% with the average *unplanned outage rate* at 4.8%.

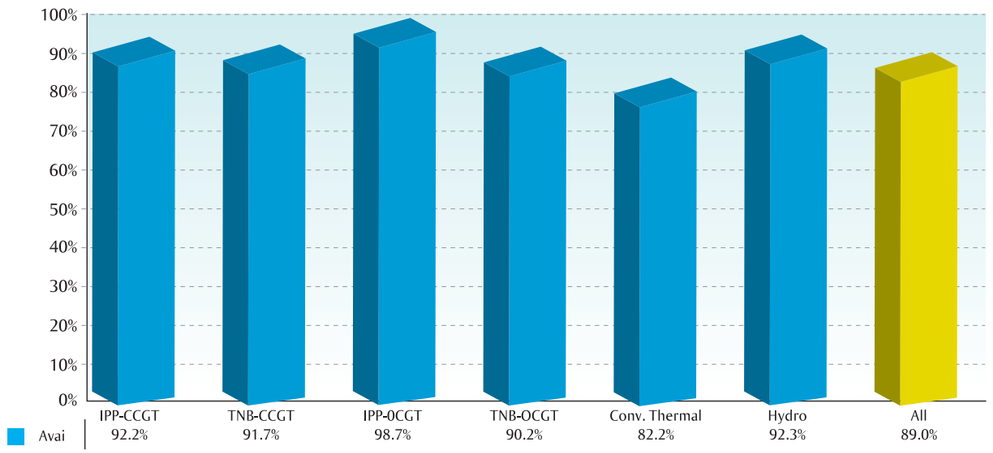


Chart 5: Power Plants Average Annual Availability

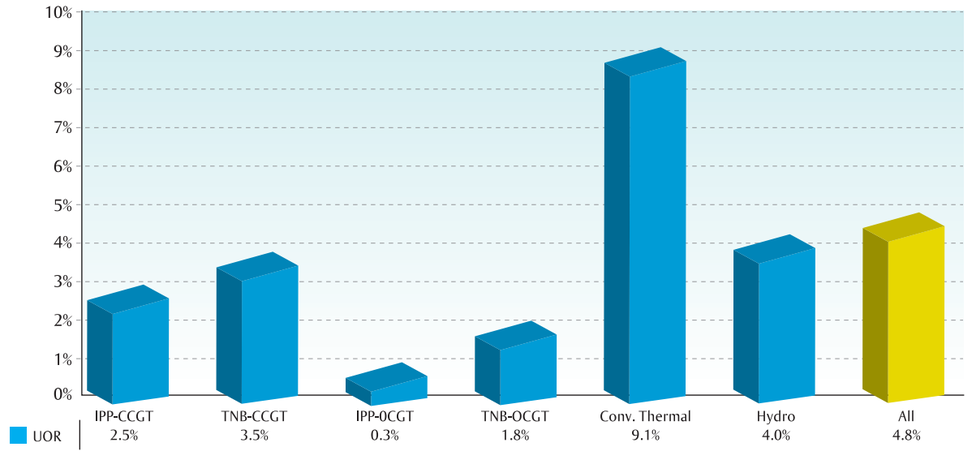


Chart 6: Power Plants Unplanned Outage Rate

The annual thermal efficiency of gas power plants was at 43.5%. New power plants such as the Tuanku Jaafar Power Plant Phase 1 (PD 1) of TNB and IPP Panglima Power Sdn. Bhd. were the most efficient power plants throughout 2008.

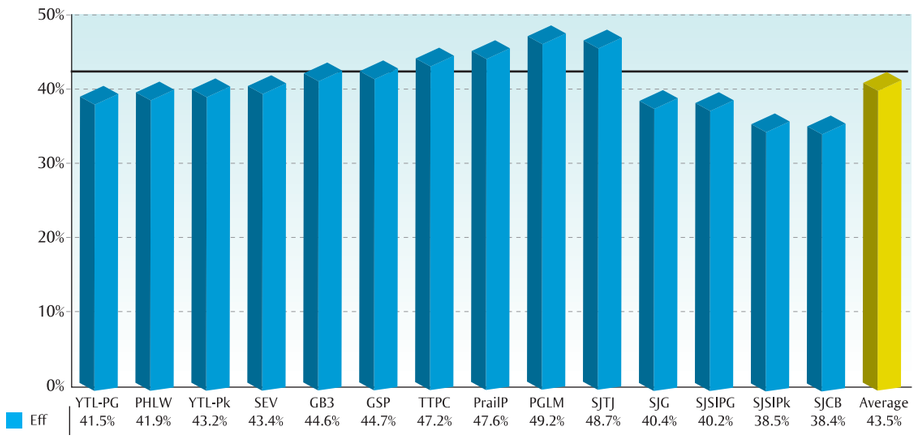


Chart 7: Gas Power Plants Average Annual Thermal Efficiency

In 2008, there were six (6) tripping incidents reported on the transmission system in Peninsular Malaysia with over 50MW and above load shedding compared to 10 incidents reported in 2007. However, no load shedding incidents were reported in 2008. The total amount of undelivered energy also reduces to 75.2% to 309.8 MWj as compared to 1,246.8 MWj in 2007.

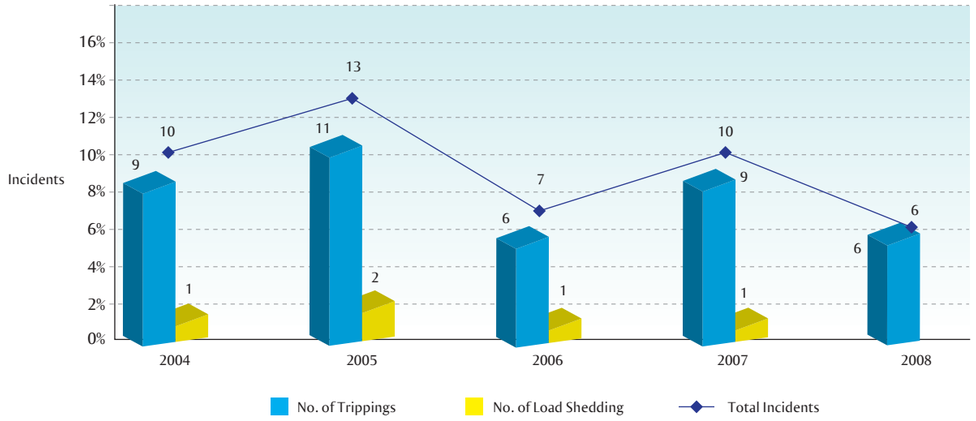
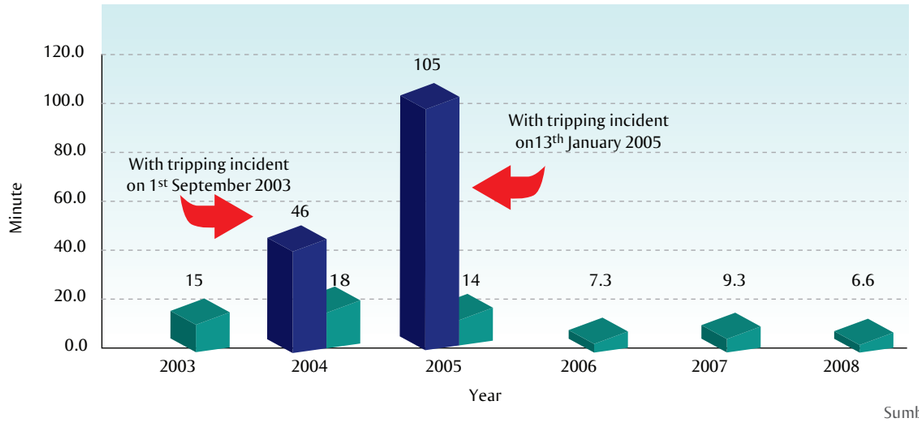


Chart 8: Transmission System Tripping with 50 MW and above Load Shedding from 2004 to 2008

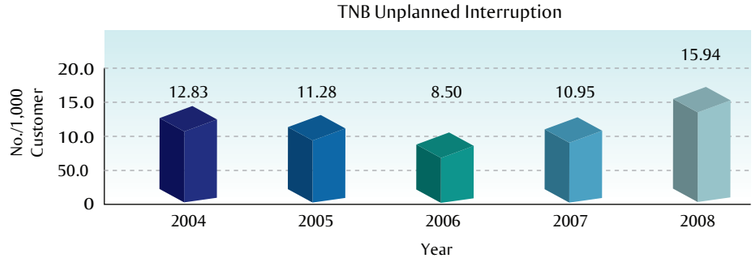
In Peninsular Malaysia, TNB's Delivery Point Unreliable Index (DePUI) in 2008 shows a reduction of 29% to 6.6 minutes compared to 9.3 system minutes in 2007. The decline of system minutes showed an increase in the performance of delivery system compared to the previous year.



Sumber : TNB

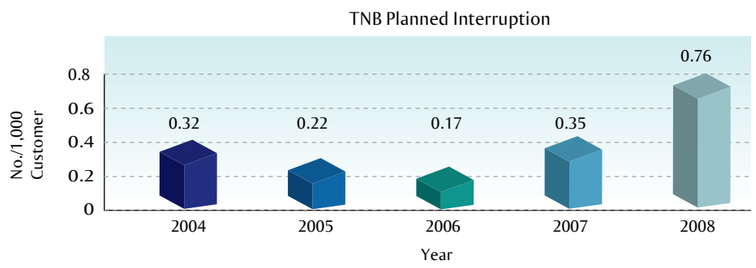
Chart 9: Delivery Point Unreliability Index (DePUI) - System Minutes

In 2008, the cases of electricity supply disruption for every 1,000 users that has been reported to occur within the supply system recorded an increase to 16.74 interruptions compared to 11.30 in 2007. The rise in number might be due to the new monitoring and reporting system implemented by TNB that allows for a more accurate and improved data collection.



Note :

Commencing September 2007, TNB adopted a supply monitoring and reporting system using a new software; TOMS (Total Outage Management System).



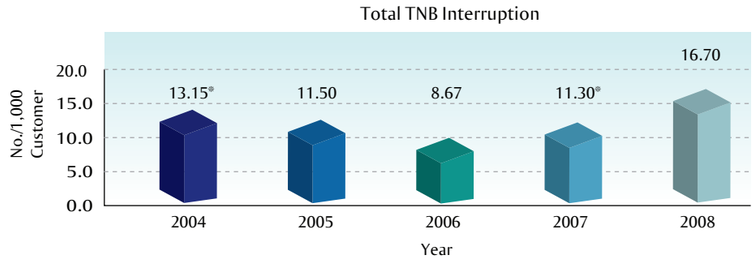


Chart 10: TNB Electricity Supply Disruption – For Every 1,000 Customer from 2004 to 2008

Sabah

In Sabah, the lack of power generation capacity in fulfilling increase in demand is becoming more critical. To add to this problem, several additional power generation projects that are planned to be implemented suffered delays and missed its target date.

Up to December 2008, the installed power generation capacity in Sabah stands at 969.5 MW. However, the reliable power generation capacity stands at only 901. MW, indicating a serious and apparent reduction in the actual power generation capability and is plunging into a worrying level. This situation is made worse by the high percentage of unplanned outage rate that is a frequent occurrence for power generation stations in Sabah.

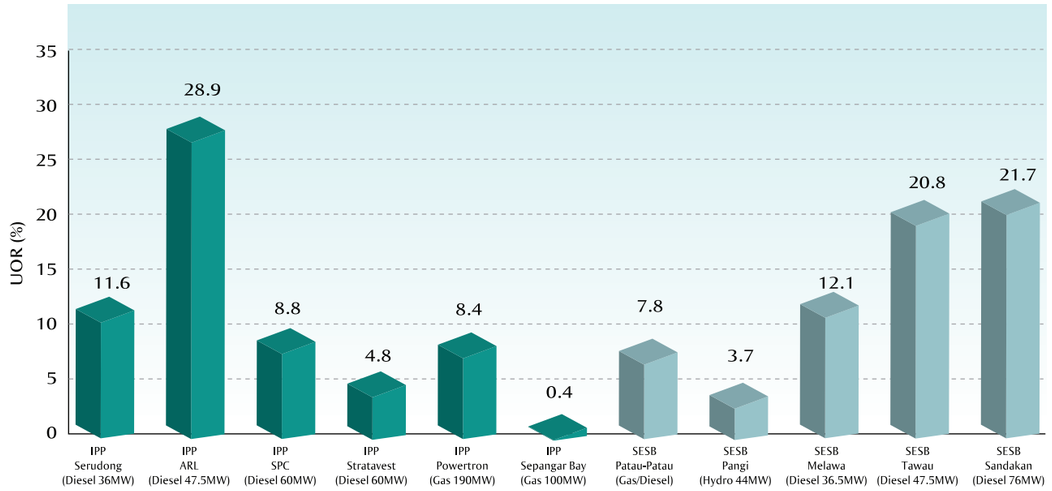


Chart 11: Unplanned Outage for Sabah (2008)

However, the maximum demand on the grid system was recorded consecutively in September 2008, which were 659.5 MW on September 24, 2008 and 672.6 MW on September 25, 2008. Electricity sales increased some 4.7%, which is 3,474 GWj in 2008 as compared to 3,317 GWj the year before. Electricity generation increased 5.4% from 4,058 GWj in 2007 to 4,278 GWj in 2008.

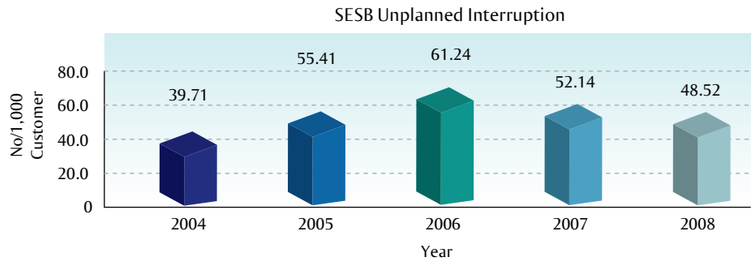
As for the supply and distribution system, the commencement of the Sabah East-West Interconnection Grid in July is expected to further strengthen the distribution of supplies via the grid system and will aid SESB in reducing the operational cost burden of its diesel and fuel power generation plants in East Malaysia. The supply and distribution system is further strengthen with the completion of the Kota Kinabalu Phase 1 Out Ring Project 132kV that commenced operations in August 2008.

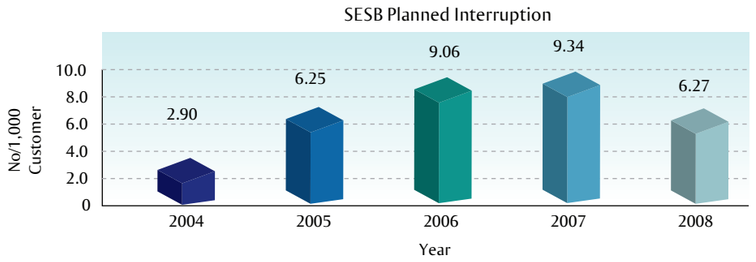
However delays in the operational commencement of several projects that have been scheduled causes an apparent constraints to the Sabah system. The lack in power generation capacity and the low reliability level from the existing worn out power plants causes the operational activities of providing electricity supplies in Sabah constantly interrupted with some recurrences in loss of power from time to time.

Although operations of the east west interconnection grid in Sabah commenced on July 28, 2007, the performance of transmission system in Sabah had declined compared to the year before. This was due to the problem of insufficient power generation capacity which had caused the system to operate at a low reserve margin. In 2008, the number of tripping incidents with load loss of up to 50 MW and above increased significantly to 32 incidents compared to two (2) incidents in 2007.

Three (3) major incidents that causing a major effect to the supply system occurred on 30 September 2007, 6 November 2007 and 21 April 2008 causes the system minutes for the Sabah grid to incur a significant increase to 154.38 minutes compared to 18.99 minutes recorded in 2007.

In Sabah, the number of power interruption for every 1,000 users in the SESB supply system for 2008 decreased to 54.79 interruptions compared to 61.48 in 2007. Close to 88.6% of the total supply interruption number in 2008 were due to unplanned outages while planned outages only recorded 11.4%.





Notes :

* Starting September 1, 2004, SESB implemented a change in its disruptions system whereby reports on electricity supply distruptions were record permanently in the new LGBNet application.

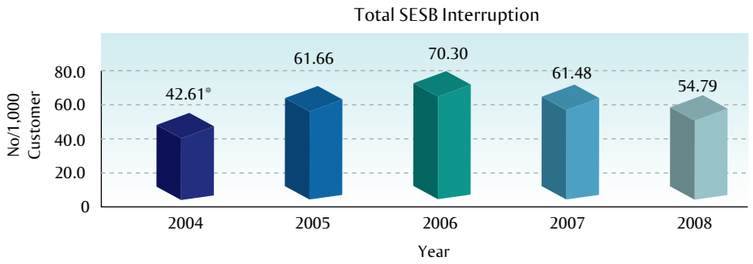


Chart 12: SESB Power Supply Interruption for Every 1,000 Customers for 2004 to 2008

On April 21, 2008, a supply interruption occurred, causing disruption to nearly 90% of power supply to Sabah. It involved all major towns in the west and east coast of Sabah except several areas in the Federal Territory of Labuan, Beaufort, Keningau, Tambunan, Tenom, Telupid and Ranau. Due to this incident, more than 300,000 customers in Sabah were affected with the load loss of 469 MW.

An investigation conducted by the Commission found that the interruption was caused by the stealing of metal components from the Suang Prai tower transmission line located within the compound of University Malaysia Sabah. The incident raised questions on the reliability of the electricity supply in Sabah. The commission also scrutinised several other matters such as power generation capacity and demand during and before the incident and SESB's operating system practices in operating the system, including its Standard Operating Procedure during an emergency crisis.

Kulim Hi-Tech Park

Kulim Hi-Tech Park (KHTP) in Kedah is an industrial area in which a huge number of international companies that operates high technology activities are located. A total of 21 companies operates their industrial activities within KHTP. NUR Distribution Sdn. Bhd. (Receiver & Manager Appointed) is the license holder that is entrusted with the responsibility to supply electricity to KHTP. In order to ensure a reliable supply of electricity power to KHTP the NUR Generation Sdn. Bhd power plant has been connected to the National Grid system.

The number of electricity interruption for every 1,000 customers in KHTP reported by NUR Distribution Sdn. Bhd. in 2008 declined by 19.3% to 41.63 interruptions compared to 51.60 interruptions. Nearly 61.5% of the total number of electricity supply interruption at KHTP in 2008 was due to planned outages while 38.5% were due to unplanned outages.

With regards to the issue of power quality often raised by companies operating in KHTP, the Commission found that these incidents are caused by voltage dip interruptions that could cause an outage of electrical supply for a few milliseconds. This type of interruptions would affect sensitive electrical equipment / high precision machineries used by these high tech companies.

Nur Distribution Sdn. Bhd. implement strategic measures to enhance the reliability of its electricity system by providing redundant feeder systems to its industrial customers, attaining supplies from its nearby independent power generation system and maintaining the connection to the national grid system. Nonetheless, the power provided would not be able to guarantee that it will be free from any voltage dip incidences as to overcome the incidence of voltage dip a different approach is required.

In handling the recurring issue, the Commission took the initiative to hold a discussion between the customers and the supplier. Suggestion was made for TNB to extend PQ Audit service to the customers in KHTP since most of the incidents were due to the TNB Grid system, which is connected to Nur Distribution Sdn. Bhd electricity supply system. Through the audit, mitigation actions could be identified or customised according to the situation / needs of the customers. However, the issue of who should bear the cost of audit could not be resolved because the users wanted high quality supply at the same cost while the supplier could not provide the required demand in supply quality with the present tariff. As KHTP plays an important role in the Government's effort to attract investment, the Commission proposed for the cost of audit to be borne by the Government via MIDA and the cost of mitigation equipment installation to be borne by the customers themselves.

PIPED GAS SUPPLY

Peninsular Malaysia and Sabah

Natural gas distribution pipeline in Peninsular Malaysia measured 1,523 km at the end of 2008, which is an increase of 38 km compared to 1,485 km at the end of 2007. This minor increase is due to the limitation in the supply of natural gas that occurred since end of 2005. The construction of a new pipeline network only involves looping and pipeline projects to NGV PETRONAS petrol stations.

The quantity of natural gas and LPG supplied by GMSB and Sabah Energy Corporation Sdn. Bhd. (SEC) increased some 5.12% to 112,001,760 mmBtu in 2008 compared to 106,547,021 mmBtu in 2007. At the end of 2008, the demand for natural gas supplied by GMSB in Peninsular Malaysia was 111,625,214 mmBtu and SEC in Sabah was 185,388 mmBtu. The LPG quantity supplied by GMSB increased 8% to 191,158 mmBtu in 2008 compared to 177,111 mmBtu in 2007.

The number of natural gas and LPG users within the industry, commercial and domestic sector receiving supplies from license holders are as stated in Table 1.

Licensees	No. of Customers			Total Customer
	Industrial	Commercial	Domestic	
GMSB (Natural Gas)	630	464	7,032	8,126
GMSB(LPG)	0	778	23,321	24,099
Sabah Energy Corp. Sdn Bhd (Natural Gas)	13	-	-	13
Total	643	1,242	30,353	32,238
Percentage (%)	(2.0%)	(3.9%)	(94.1%)	

Table 1: Number of Customers using Piped Gas

Table 2 shows the performance indications for gas supply continuation and safety with regards to the gas supplies activities via pipelines operated by license holder in Peninsular Malaysia for 2008. In general, their performance are found to be a par with the performance of industrial natural gas supply via pipeline available in developed countries.

Performance Indicator	Calculation Formula	Unit	Index For The Year 2008	
			Natural gas	LPG
SAIDI (Supply Average Interruption Duration Index)	Total Minutes Per Year / Average Total No of Users	minute/ customer	0.1323	0.0186
SAIFI (Supply Average Interruption Frequency Index)	Total No. of User Interruptions Per Year / Average Total No of Users	Interruption/ customer	0.0015	0.0005
CAIDI (Customer Average Interruption Duration Index)(SAIDI/SAIFI)	Total User Minutes / Total No. of User Interruptions	minute/ customer	90.0833	38.1667
Gas leakages along pipeline for every 1000 km		No. of leakages /1000 km	0	
Leakages at gas stations and domestic premises for every 1000 customers		No. of leakages/ 1000 customer	0.0268(Industrial) 0.0056(Domestic)	

Table 2: GMSB Performance Indicator

In order to enhance their performance, license holder increase their inspection and maintenance activities on both the natural gas and LPG pipeline. Following that, licence holders had also identified or implement more effective prevention measures to enhance continuous supply and safety performance.

MANAGING **INDUSTRIAL ISSUES**

THE EFFECT OF THE GLOBAL FUEL PRICE FLUCTUATION ON THE PRICE OF ENERGY

The year 2008 saw a drastic increase in the price of world crude oil, beginning from early in the year reaching its highest price of USD147.70 per barrel on July 11, 2008. The increase exceeded the 50% average price of crude oil in 2007. The increase in fuel price have a direct impact on the price of goods and services including the energy and non-energy sectors. However, the world crude oil prices started to plummet soon after when on December 21, 2008, the world oil price stood at USD33.87 per barrel, nearly a quarter of the highest price for 2008.

The increase in the world crude oil leads to significant changes in the prices of various fuel prices globally. As such, the prices of coal, liquid natural gas and medium fuel oil similarly head towards the same direction.

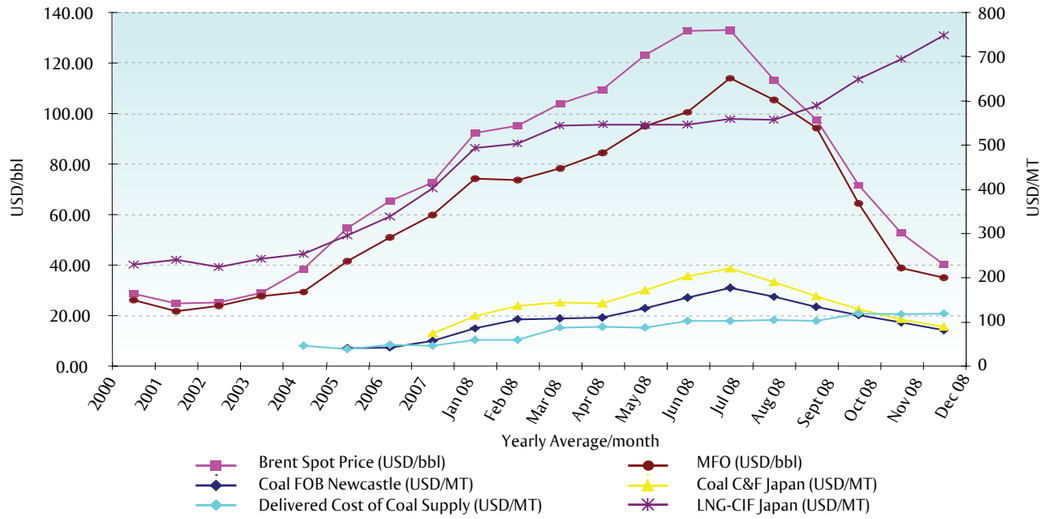


Chart 13: Global Market Fuel Price 2000-2008

RESTRUCTURING OF NATURAL GAS SUBSIDY

In early June 2008, the Government announces the restructuring package for the fuel subsidy affected by the drastic increase in the global oil price. The objective of the subsidy restructuring is to allow for a fair distribution of support benefitting those that are in real need of aid especially the middle and low income earners. The increase in fuel cost such as gas to power generation plants and non-energy sector would definitely give a major blow to their overall economic standing, which needs to be to be balanced with the benefits received. In tandem with the Government's intention to reduce the provision of subsidy and move towards market rate within a stipulated time, the Commission conducted several analysis and presented a proposal for the Government's consideration. The increase in crude oil price boosted the prices of natural gas supplied by PETRONAS. The price of natural gas which

had been subsidized since 1997 to the power generation plant sector and in 2002 for the non-energy sector was revised as shown in Chart 14.

Apart from the restructuring of subsidies on petrol and diesel for the transportation sector, commencing July 1, 2008, the price of fuel supplied by PETRONAS in Peninsular Malaysia sees an increase as below:

a) For the generation plant sector, gas price increased from RM6.40 per mmBtu to RM14.31 per mmBtu.
b) For customers in the industry sector using less than 2 mmscfd, the price fixed by GMSB increased from RM9.40 per mmBtu to RM22.06 per mmBtu.
c) For customers in the industry sector using more than 2 mmscfd, the price of the gas supplied by PETRONAS increased from RM11.32 per mmBtu to RM23.88 per mmBtu.

The Government decided that the subsidy for the electricity sector be reduced progressively in line with the current market price, up to the 15th year when the level reaches the market price. At the same time, subsidy for the industry sector would be reduced progressively in line with the market price, up to the 11th year, when the level reaches the market price.

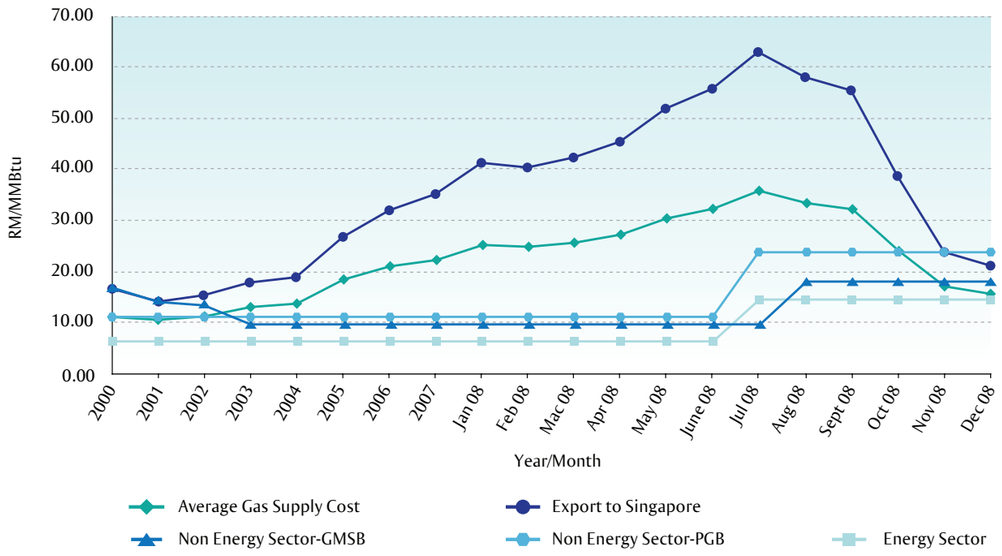


Chart 14: The Change in the Price of Natural Gas in Peninsular Malaysia

NEW TARIFF RATE AND STRUCTURE FOR ELECTRICITY AND PIPED GAS

With the restructuring of gas subsidy and the increase of coal price in the market, the Commission reviewed the impact of fuel cost increase on TNB. Taking into consideration the Government's intention for the electricity sector to move to market price by the 15th year, the proposal for tariff increase was studied together by KTAK and the EPU. Following that, the Government approved a new electricity tariff structure to enable TNB to absorb fuel cost for gas and coal and the tariff was enforced in July 1, 2008.

The new tariff for electricity and piped gas are as follows:

- The average TNB electricity tariff increased from 26.32 sen/kWj to 32.50 sen/kWj showing and increase of 23.5%; and

- The tariff of gas supplied by GMSB increased from RM12.87mmBtu to RM22.06/mmBtu showing an increase of 71.4%.

In line with the Government's intention to protect the welfare of the low and medium income earners, the new electricity structure does not affect users using 200 Kilowatt Hour (kWj) and less every month. This means 59% of households in Peninsular Malaysia will continue paying at the same rate if they maintain the same usage. For commercial and industrial customers, the electricity tariff saw an increase of 26%. The average tariff based on the increase is 32.5 sen/kWj.

Concurrently, the Government is facing increasing pressure to make demand on the Independent Power Producers to also contribute to the electricity sector in order to reduce the burden faced due to the increase in fuel price. The Independent Power Producers were seen as the party unaffected with the increase in fuel cost and was said to make more profit from market returns. Therefore, in line with the restructuring of the gas subsidy, the Government decided to enforce a provision under the Windfall Profit Levy Act 1998 on the Independent Power Producers, considered as their contribution to off-set the increase of fuel cost in electricity generation.

The decision was not welcomed by the financial market due to its implication on the Independent Power Producers bond values, which are funded through bond issuance. Finally, the Government retracted the decision and urged the Independent Power Producers to make a one-off contribution in place of the levy. The one-off payment would be enforced starting January 2009 and is estimated to be worth RM593 million.

In this matter, all parties agreed upon if a re-negotiation on the Power Purchase Agreement led by the Commission in 2007 and initiated again in early 2008, such complication would not have occurred.

MONITORING THE POWER GENERATION SECTOR FUEL CONSUMPTION

Coal

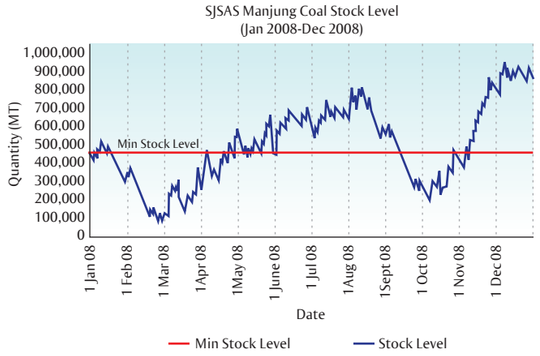
The supply and demand scenario in Peninsular Malaysia sees a sudden change in 2008. The inconsistent supply of fuel in the first and second quarter of the year became the main concern for the Commission and the utility and fuel

supply sector. Up to midyear, the overall coal reserve for power plants is lower than the years before although the supply of coal was at its highest level recorded. In fact, the coal reserve from the month of February to April stands at a very worrying level.

In February 2008, a discussion between the Commission and the Grid System Operator and TNB Fuel Sdn. Bhd. was held to find a solution on the dwindling coal supply. Discussions were also held with PETRONAS on the current gas supply situation and attended by Grid System Operator and TNB Fuel from time to time. Several gas supply outages caused shortage in gas supply and increase in coal usage.

However, in a situation when coal supply was facing shortage due to the directive from the Indonesian Government to halt supply to give way to a fresh price negotiation, drastic actions had to be taken to ensure adequate coal supply so that the electricity supply system within the country will not be affected. Grid System Operator, power plants, TNB Fuel and PETRONAS took effective measures to ensure that consumer will not experience any electrical supply disruption within the said period.

This situation however changed drastically in the fourth quarter when the operation of pipeline gas delivery was supported by coal reserve, which was at its yearly highest level and the increase of water storage level in major hydroelectric schemes. With the reduction of electricity demand and the looming global economic woes, the coal reserves at power plants exceeded the maximum level and needed a reschedule of shipment.



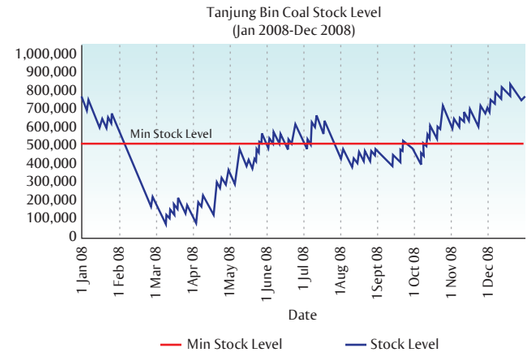
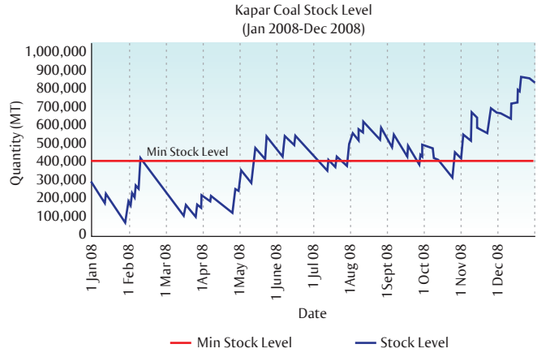
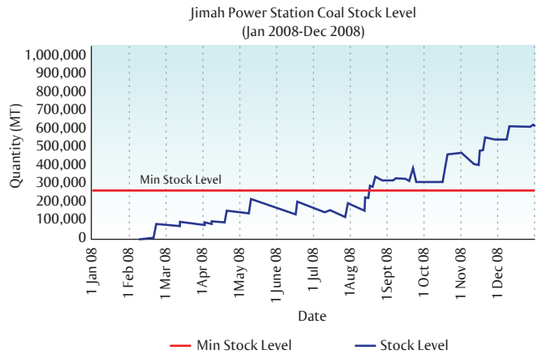


Chart 15: Coal Reserve Situation

The supply of coal required to fulfil the consumption of power generating stations that are presently in operations and the Jimah Energy Ventures Sdn. Bhd, power generating station that is expected to commence operations in 2009 are made by TNB Fuel Sdn. Bhd. The coal supply was obtained from Indonesia (63%), Australia (20%) and South Africa (17%). Some 12.925 million metric tonne of coal costing RM 3,241 million were supplied to the stations in the 2008 financial year.

Since supply security was the main agenda, on November 2008, a delegation led by the Minister and officials from the Ministry of Energy, Water and Communication and the Commission visited Indonesia among other, to enhance cooperation between the two Government, especially in the supply of coal, supply of electricity to Kalimantan, grid interconnection between Sumatera and Peninsular Malaysia and deliberate on other issues. In the final quarter of 2008, a price re-negotiation by TNBF and Indonesian suppliers was agreed upon.





In terms of coal prices, the highest price recorded in history was in July 2008 with Newcastle coal reaching up to US$195/tonnes. Drastic increase of more than 100% were also recorded in other coal price indexes such as Richards Bay, JPU and Kalimantan. The market price however plummeted to US$80/tonnes on December 26, 2008.

Gas

The natural gas demand and supply daily average within the energy sector in 2008 was recorded at a rate of 1,292 mmscfd and 1,270 mmscfd respectively. Oil / distillate is used as a replacement fuel for CCGT, OCGT and Thermal Gas power plants when there are reticulation on the amount of gas that can be supplied. These reticulations are caused by forced outage or scheduled maintenance work conducted along the supply line, gas processing power plants or off shore locations. The distillate plant in Teluk Ewa functions as back-up power plant should any supply interruption were to occur along the underwater supply delivery line to Langkawi Island.

Several incidents of gas reticulation occurred in 2008 involving reduction in the quantity of gas supply of up to 400 mmscfd. In mid February, allocation for gas in the energy sector reticulated to around 1,000 mmscfd for more than 10 days following a force majueure. At the same time, coal reserve was at its lowest due to high demand and interruption in the supply chain.

PETRONAS as a natural gas supplier in Peninsular Malaysia conducted a few briefing sessions for the Commission and licence holders which are TNB and GMSB throughout 2008. These briefing were held to clarify on the current

natural gas supply scenario in Peninsular Malaysia. The demand for natural gas supply from the energy and non-energy sector exceeded the total natural gas production in Peninsular Malaysia and natural gas was obtained from West Natuna, Indonesia and the Malaysia-Thailand Joint Development Area (MT-JDA).

PETRONAS is still maintaining that the production of natural gas in Peninsular Malaysia (GPP, Kertih) stays at 2,000 mmscfd which is based on the country's current policy. To maintain the integrity of natural gas pipeline in Peninsular Malaysia, PETRONAS issued a directive to its customers so that the usage of natural gas is in accordance to the agreement signed by both parties. Following that, GMSB halted all natural gas pipeline development since end of 2005 until now. These briefing were held to clarify on the current natural gas supply scenario in Peninsular Malaysia.

POWER GENERATION CAPACITY PLANNING

Peninsular Malaysia

The planning towards ensuring that there are sufficient supply to fulfil demands up to 2020 has been drafted by the Commission and presented during the Electricity Supply and Tariff Implementation Planning Committee (JPPPET) meeting. Scheduled analysis outlined in the plan gave focus on the requirement to increase capacity taking into consideration the existing stock margin, growth in electricity demand, fuel resources, increase in fuel cost and others. The increase in fuel cost, gas reticulation and coal and the issue of the implementation of Bakun electricity supply delivery became the key focus in 2008.

The activation of the electricity supply from Bakun will involve the construction of a converter station and the assembly of a 300 km supply delivery line from the landing point in Tg. Leman to Bentong in Peninsular Malaysia. Licensing issues for the Bakun project needed a policy decision from the Government. To date, the Government is still maintaining its delivery activities under one delivery system entity in Peninsular Malaysia.

Based on the supply and demand projection after factoring in the slow growth of electricity demand due to the global economic crisis, uncertainties in the implementation of several projects that have yet to reach any conclusion and the realistic period required to manufacture and install the undersea cables, the Bakun delivery project would most probably be able to make its electricity supply only by 2016. Besides that, the actual date for the supply from Bakun is also dependant on the completion of the Ulu Terangganu (212 MW) and Ulu Jelai (372 MW) projects. Therefore, to mitigate the risk of project delay and to meet the demand for electricity in that period, several alternatives are being considered such as extending the operations of old plants such as Paka, Connaught Bridge and Pasir Gudang and commissioning of new plants.

In June 2008, Sime Darby Berhad decided to pull out as an equity holder in Sarawak Hidro Sdn. Bhd. (SHSB) and TransCo. Sime Darby's decision was made due to the non-viability aspect for the project continuation based on the agreed prices. The Commission was on the opinion that the electricity price from Bakun (ex-Peninsular) must be competitive compared to the price of electricity generated by alternative fuel supply such as coal or gas. For that purpose, efforts to secure project funding at a very low rate such as yen soft loan must be continued.

In August 2008, Sarawak Energy Berhad (SEB) and TNB submitted a proposal to take over the operation of Bakun Hydroelectronic Project (through leasing agreement) and to develop an electricity delivery system from Sarawak to Peninsular Malaysia.

Sabah

In Sabah, insufficient energy supply and instability of electricity supply system continued to be the key issues. Capacity increase from existing power plants such as the Sepangar Bay Power Corporation (from 66 MW to 100 MW) and Ranhill Powertron (from 120 MW to 190 MW) contributed in sustaining demand load within the projected increase of 6.7%. Since the projection in load demand in Sabah is expected to increase at a very encouraging rate, the Government took the initiatives to monitor and analyse potential projects such as:

- Gas power plant with capacity of 190 MW by Ranhill Powetron II or Ranhill Tuaran;
- Coal power plant with capacity of 300 MW by Lahad Datu Energy; and
- Gas power plant with capacity of 100 MW by SPR Energy Sdn. Bhd

Gas power plant station projects are scheduled to commence operation in tandem to the availability of gas supply by PETRONAS. However, for coal power plant station project, a project site in Lahad Datu had to be shifted to Sandakan due to protest from local residents. Although the Government directed for Lahad Datu Energy to conduct a review of the Environmental Impact Assessment (EIA) at the new site in the Palm Oil Industries Cluster (POIC) area in Sandakan, protests are still being heard over the project development.

Meanwhile, the gas power station project by SPR Energy Sdn. Bhd. also shifted its site from Kota Belud to Kimanis because the installation of its 40 km gas pipe would incur additional cost. The Government decided for the project to go on fast track in order to sustain the load in 2011 going forward. The power plant station would start operation using distillate fuel and later, gas, after receiving gas supply from Sabah Oil & Gas Terminal (SOGT) in 2013. Until the end of 2008, negotiations on the project implementation remains under discussion.

Through SOGT, Petronas Gas Berhad is capable of supplying 60 mmscfd of gas to Sabah. Gas supply of 15 mmscfd would be distributed to gas power plants project with the capacity of 100 MW by SPR and 45 mmscfd is found to have the potential to generate 300 MW. Following that, in May 2008, the Government proposed that the subsidiary of PETRONAS Gas Berhad to forge a cooperation with an agency from the Sabah State Government to operate the 300 MW power plant project.

Since the project would only commence operations by the end of 2009 in stages, the Government promoted the Small Renewable Energy Projects (SREP) programmed to generate electricity from oil palm waste that is found abundant in Sabah. Among the projects identified and would start operation in 2009 are the Seguntor Bio Energy-10 MW, Kina Bio Energy-10 MW and Esajadi-9 MW mini hydro project. In addition to these projects, SESB suggested that several generator units be rented out to contain the load in 2009.

CONTINUING **THE INDUSTRY TRANSFORMATION INITIATIVES**

REVISION TO THE TNB LICENSING TERMS

Licensing for the electricity supply activities in Peninsular Malaysia is issued by TNB under its Electricity Supply Department since September 1990 following the privatisation of Lembaga Letrik Negara (LLN). The issuance of these licenses are made in a time where electricity supply for the industry is in its infancy stage moving towards a new phase. The shift also presented a new challenge to the regulatory body which was also at the beginning stage of implementing its function as an economic and technical regulator besides the safety regulating functions that it inherits.

Thus the licence issued to TNB contain basic conditions covering main matters thought relevant and suitable during its issuance, that aim to expedite the implementation of the privatisation process initiated by the Government. In 2008, the Commission presented to the Minister of Energy, Water and Communication a proposal to amend the terms and conditions of license issued by TNB, taking into consideration the current development and happenings within the industry.

REVIEW OF GRID CODE AND DISTRIBUTION CODE

After 18 years in operation, with all the changes occurring within the industry. Competition started with the introduction of Independent Power Producers in 1993. With the advent of the Independent Power Producers into TNB's monopoly in power generation, ground rules to ensure healthy competition and coordinated operation towards ensuring the security of electricity supply system was needed. In the following years, in line with the Government's objective to form high technology industrial areas and with its intention to develop the petrochemical industry, several electricity distribution firms were licensed to supply electricity to specific areas. Therefore, in 1994, the first Grid Code was legislated and enforced. The Distribution Code was also legislated but it could not be finalized due to disagreement from several industry players.

With the changes happening within the industry, a review on the Grid Code is needed. At the distribution system level, efforts to form a Distribution Code should be continued. TNB as the key player within the industry has presented a draft of the Grid Code and the Distribution Code for approval. Due to protest from other industry players, especially Independent Power Producers on several regulations stipulated in the draft, the Commission appointed the Energy Research Institute (TERI) from India as the consultant to revise the draft.

On June 19, 2008, the Commission and TERI conducted a briefing to all the industry player and stakeholders on the proposed Grid Code and Distribution Code. Since several fundamental issues, especially ones related to the industry governance and structure cannot be resolved, the implementation and enforcement of the Grid Code and Distribution Code has been postponed to a more suitable date.

TNB SUPPLY SERVICES PERFORMANCE STANDARD

In line with the Commission's duties to regulate and govern the electricity supply services provided by the license holder, including stipulating the standard of service performance, the Commission in 2008 have legislated a TNB supply service performance standard that dictates the level of specific services and the proposal for a compensation payment to user in the form of a rebate, should the stipulated standard are not fulfilled. The application of the policy is not something new, as it has been enforced through terms 14 and 15 stipulated in the issuance of license to TNB. Only that the standard does not impose any penalty on TNB should they fail to comply as stipulated.

Therefore, in tandem with the Government's effort to have the consumers compensated should TNB failed to comply with the stipulated service standard, the Commission made the decision to further enhance and streamline the TNB's supply service performance standard to effectively improved TNB's service.

The new supply and service performance standard was legislated after taking into consideration several aspects of services that constantly gave rise to complaints from customers. The legislated standard place forth a minimum service level and guaranteed service level that impose penalties for non-compliance. Several discussions were held between the Commission and TNB to finalise the legislated standard. Due to the fact that the implementation of the proposed supply and service performance standard would involve penalty payment to consumers and have a wide implication, the proposal was submitted to KTAK and YB Minister for their approval. Up to the end of 2008, the implementation was still pending due to the difference of approach between the Commission and TNB. TNB, although has initially agreed on most of the minimum standard proposed, is still not ready to implement the payment of penalty to customers since it is of the opinion that the methodology should be studied intensively.

STUDY ON THE STANDARD OF POWER SUPPLY QUALITY IN PENINSULAR MALAYSIA

The energy standard for the quality of power supply will provide guidelines, suggestions and proposition that would assist in finding the compatibility level between the electricity supply system and consumers' appliances requirement. The compatibility can be set by enforcing the Malaysian Standard prepared by the Malaysian Standard Department. The application of these standards, follows the international standard policies that are mostly derived from studies conducted in Europe, Northern America and Japan. The Malaysian Energy Quality Standard Technical Committee was formed in mid 2000 and until now, it has issued more that 30 standards related to the electricity power supply quality. However most of these standards are not extensively implemented within the local industry.

To ensure that quality of electricity supply remains at a specific level, certain standards would need to be made into compulsory guidelines by the industry. However the stipulation of the standard limit and level on the quality of energy supplied would pose a huge impact on the industrial cost especially during preparation for mitigation. Therefore, a research need to be conducted to determine the impact on the implementation of these standards in terms of cost to the industry. To determine the level of standards that are suitable and applicable in Malaysia

based on the IEC Standard, in 2008 the Commission made plans to implement the Power Quality Baseline study. Up to 2008, tender documents for the appointment of consultant were prepared and the tender is expected to be floated in the beginning of 2009. This research is expected to take one and a half year for data collection and analysis. While waiting for legal amendment and the completion of the quality standard research, the Commission set several Malaysian standards as energy quality guidelines for the industrial parties to adopt voluntarily.

NEW APPROACH IN MANAGEMENT AUDIT AND ENGINEERING UTILITIES

In an effort to improve the administrative aspect in order to enhance the utility operational efficiency, service delivery and quality of supply, the Commission undertook several different approaches in implementing Management and Engineering Audits for two key utilities -- GMSB and TNB in order to increase the credibility of the audit result.

On the audit of GMSB, the appointment of the consultant was made by the Commission and its implementation follows the terms of reference stipulated by the Commission. This process is different from earlier audits whereby the appointment of consultant and the implementation was done by the licensees. Audit on GMSB was completed by PricewaterhouseCoopers Advisory Services Sdn. Bhd. in 2008.

Meanwhile, for Management and Engineering Audit on TNB, the Commission was directed by the Minister of Energy, Water and Communication to undertake Management and Engineering Audit on the operation with the cost borne by TNB. Preparation for tender issuance was completed at the end of 2008 and audit would start in 2009.

ACT AND REGULATIONS REVIEW

The Electricity Supply Act 1990 was reviewed in 2007 and a draft of the new Electricity Bill was legislated to replace the Act. The draft provides a structural review and streamlining process conducted by the KTAK. It consists of a new stipulation for electricity licensing, supply and safety. Increase in authoritative power and enforcement process on industries will be implemented. In addition, the application of the latest technology such as broadband will be allowed and made adaptable via the electricity supply lines and concerns on the computer security system outlined by cyber security issues will also be factored in the drafting of the Bill.

The Commission also reviewed the Gas Supply Act 1993 and Gas Supply Regulations 1997 to strengthen safety and supply regulation on gas pipeline system. The review was made with consultants from First Principles. The review only involved matters pertaining to gas safety issues and not on issues concerning gas supply. The review on Gas Supply Act 1993 and Gas Supply Regulations 1997 included licensing issues, definition of a contractor, contractor registration, contracting works and gas equipment approval. The matters are stated in Gas Supply Regulation 1997 although it was not mentioned in Gas Supply Act 1993. These amendments are made in order to further strengthen the Act.

POLICY, STANDARD AND SAFETY GUIDELINES

The Commission cooperated with several organisations such as the International Electrotechnical Commission (IEC), the Standard Malaysia Department, SIRIM Berhad and related associations to strengthen policies, existing standards and developing / preparing practice codes and guidelines and other technical facilities required for implementation within the electricity and piped gas supply industry.

Throughout 2008, several policies, standard and guidelines were introduced and enforced such as; -

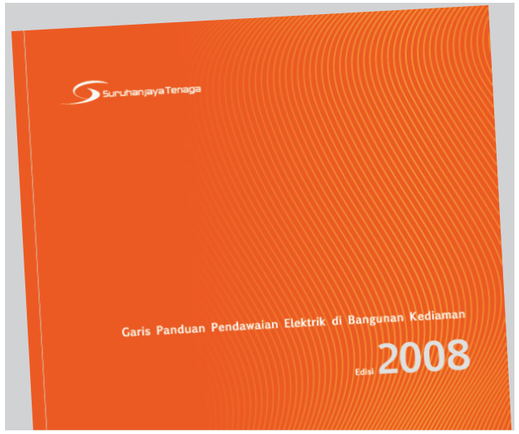
- An installation guideline placed on all electrical installation apparatus has been prepared and is to be applied by professional practitioner such as electrical consultant engineer and competent persons such as supervisor, chargeman, wireman, and cable jointer. This guideline stipulates the adoption of three (3) standard which are the MS IEC 60364:2003, MS 1936:2006 and MS 1979:2007 that outline detailed methods on the proper, safe and a well-functioning wiring process.

- MS IEC 60335-2-76:2007 Standard on the installation of electrical gates to enhance the safety level of electric fence installation was prepared and updated for use. It is more conducive and comprehensive in accordance to the current international standard.

- MS 1535, MS 1165, MS 831 and MS 773 Standards have been adopted on gas equipment and appliances and the Commission has appointed SIRIM to test and certify gas equipment and chargers.

- Standard Malaysia which is MS 1996:2007 Gas Cooking Appliances for Commercial Sector detailed out the requirement for cooking appliances that uses LPG within the commercial sector. This Standard also covers the need of testing methods on cooking equipment.

- The review of MS 930:1986 Code of Practice for the Installation of Fuel Gas Piping Systems and Appliances, is still being studied. This standard is expected to be ready in mid 2009. For the MS 1204 Safety in Laboratories standard, the first part is ready while the second part is still under discussion with industry players, institutions and associations.



- The Guideline for Electrical Wiring in Residential Building is prepared as a wiring guideline for all Wireman and Electrical Contractors to adopt as a secured electrical wiring system for residential as stipulated under the Electricity Regulation 1994.

- Guideline for Accredited Installation (Amended) – conditions to be met by training institutes in order to be certified enabling them to offer and conduct courses and competency examinations for Wiremen and Chargeman.

ENERGY BLUEPRINT RESEARCH

The Energy Blueprint that was initiated in August 2007 by the Institute of Strategic and International Studies (ISIS) Malaysia was completed in December 2008. The report outline measures to be taken to ensure the structure of the policy and institutions in the energy sector are compatible and effective and the existing capacity in ensuring that the energy economics are self reliance, resilient, responsive and adaptive to the changing circumstances.

Based on the research results obtained by ISIS consultants, 42 proposals were made which covers eleven (11) areas of focus as follows:

FIELD	FOCUS
Energy Data	Energy information must be more comprehensive, precise and timely with the enhancement made on its coordination and management process.
Natural Resources Management	The country's natural resources is managed in a sustainable manner considering that these resources are rapidly depleting.
Natural Gas in Peninsular Malaysia	Reduction and abolishment of gas subsidy and preparation towards the shift to alternative fuel.
Petroleum Retail Market	Abolishment of subsidies in the long run to reduce vulnerability and to upgrade supply assurance through variation.
Transport	Efficiency enhancement, reducing dependency on petroleum and upgrading of technology and physical infrastructure.
Green House Energy and Gas	Management of green house gas from the energy sector.
Efficient Energy Use and Enhancing Productivity	Implementing measures proven to enhance energy efficiency.
Biofuel	Research on resource and technology to enhance the use of biomass in the production of biofuels.
Renewable Energy and Energy Technology	Research on renewable energy resources to make Malaysia an R & D reference centre.
Nuclear Energy	To consider nuclear energy to meet future energy requirement.
Electricity Supply Sector	Enhancing the electricity sector's efficiency and reliability by strengthening its administration and governance process.

Schedule 3: Fields Given Focus in the Energy Blueprint

THE PRELIMINARY ASSESSMENT ON THE INTRODUCTION OF A COMPETITIVE ELECTRICITY MARKET STUDY

The Preliminary Assessment on the Introduction of a Competitive Electricity Market is based on the assessment of readiness, requirement and acceptance towards the introduction of a competitive electricity market. Consulting experts from PA Consulting Group Sdn. Bhd. were appointed to do a four (4) month research starting in July 2008 and to be completed in November 2008.

The research was also done taking into consideration issues discussed in previous research reports such as the reports done by the Economic Planning Unit, the Ministry of Energy, Water and Communication, Independent Power Producers and TNB.

Based on the assessment on the readiness, need and acceptance, the research agreed that if the Government wants to introduce a competitive electricity market, it must be done carefully and systematically. All steps need to be taken carefully and to factored in consideration on the industry player acceptance and the readiness level of the market participants to adjust and adopt to the new energy market environment.

The research also suggested that the introduction of the electricity market to be conducted in a systematic manner. The result of this research suggested for the electricity industry to start the market initiation effort by introducing a no regret initiatives where all steps taken will strengthen the governing structure of this sector besides giving a signal on the preparedness of the energy industry to adapt with the competitive market.

RENEWABLE ENERGY

Among the challenges during Renewable Energy (RE) development process is to meet the target of the SREP projects as set in the Ninth Malaysia Plan (2006-2010) which is achieving energy generation capacity of 350MW 'grid connected'.

In term of the project implementation, issues such as lack of support from the State Government, project funding, competition in the use of raw material and electricity tariff are among the factors that overshadowed the development of the SREP project.

Amongst the effort undertaken by the Commission to help mitigate these issues are by enhancing the application processing mechanism to identify potential developers to develop the projects Amongst the effort undertaken by the Commission to facilitate the mitigation process is to enhance the application processing mechanism enabling them to identify prospective developers suitable to undertake the project development activities. The Commission was also involved in several discussion sessions with the State Government and financial institutions in an effort to give a clearer explanation on the measures taken by the Government to ensure SERP project's direction and sustainability.

In 2008, the development of the SREP project showed encouraging progress where ten (10) new applications were approved and the total number of projects approved up to 2008 was 37 projects with the capacity of 217 MW. Among the factors contributing to this is:

- The increase of electricity tariff for biomass and biogas resources from 19 sen/kWj to 21 sen/kWj;

- The introduction of Standardised REPPA for SREP projects with capacity of 2MW and below; and
- The cooperation and support extended by Government agencies such as State Economic Planning Unit (UPEN), the Environment Department, and other agencies.

There have been an increase in the application for SREP biomass and biogas projects in 2008. This could be attributed to the effect of the increase in electricity tariff to 21 sen/kWj for RE using biomass and biogas resources as announced on August 17, 2007. The increase in the tariff was the second after the first increase on September 21, 2006 which saw the tariff increased from 17 to 19 sen/kWj. The impact of the tariff increase can be seen in the schedule and tabled below:

Duration	Tariff	No. of Projects		
		Biomass	Biogas	Total
2002 – Sept 2006	14 –17 cent/kWj	10	1	11
Sept 2006 – Aug 2007	19 cent/kWj	0	3	3
Aug 2007 – Current	21 cent/kWj	7	4	11

Schedule 4: The number of SREP Project Application

Duration	Tariff	% Increase in the Number of Projects	
		Biomass	Biogas
Sept 2006 – Aug 2007	Impact 19 cent/kWj	0%	38%
Aug 2007 – Current	Impact 21 cent/kWj	41%	50%

Schedule 5: Percentage of Increase in the Number of SREP Projects

Mini hydro projects also showed some progress in tandem to the increased number of approvals obtained by the developers from the State Economic Planning Unit (UPEN). This is expected to assist applicants on the part of UPEN on the development of RE project. Four (4) applications for mini hydro projects were received with two (2) of them approved in 2008.

As the Secretariat for the SREP programme, the Commission took the initiative to upgrade and to explain in detail the information in the Programme's guidebook to help the applicants in the preparation of documents needed for processing approvals. Ten (10) projects were approved throughout 2008 and five (5) projects, which had been licensed, are expected to commence operation by the end of 2008. However, all these projects could not commence operation as expected due to technical problems and has been postponed to the first quarter of 2009. 2008 also saw efforts to simplify the energy sales and purchase agreement (REPPA) between the developers and the utilities especially for projects with the capacity of 2MW and below. Efforts to make REPPA a standard document could shorten the negotiation process.

The Commission also played a role in financing the Suria 1000 programme under the Malaysia Building Integrated Photovoltaic (MBIPV) (2006 - 2010) project and was involved in the project supervision. Under Suria 1000, subsidies will be given out to public who are interested to install BIPV in their homes and offices to generate electricity power.

Suria 1000 programme targets to achieve solar system installation capacity of 1,200 kWp which is connected to the grid. Until December 2008, a total of 427.56 kWp was produced with the subsidy amounting to RM5,281,366.52 given out to 56 individuals and 12 commercial companies. Besides that, around RM2 million was paid out to three housing developers who installed BIPV system in their development areas. the program successfully attracts public attention based on the encouraging feedbacks and achievement that surpassed the target set for 2008.

ENERGY COUNCIL OF MALAYSIA (ECOM)

The Commission took the initiative to bring together all the organisations involved in the county's energy generation under the wing of the Energy Council of Malaysia (ECOM). ECOM was initiated as an umbrella association for various organisation and institution that has different interest. Besides being a discussion platform for the energy bodies, ECOM also acted as the industry's collective and effective voice in the country. ECOM is registered under the Malaysian Association Act 1966 and was formed legally on July 2, 2008.

Hosting the Electricity Summit 2008 was ECOM's main activity in 2008. This conference was attended by more than 300 participants from the utilities, consultants, Independent Power Producers, industry regulators, government bodies, investment analysts, NGOs, financial institutions, and the customers. It succeeded in becoming a platform for participants and speakers to interact, forming a communication link and looking for partnership opportunities in order to further develop and enhance the electricity supply industry within the country.

PROTECTING **CONSUMER'S INTEREST**

In line with the Commission's mission, the role to protect consumers' interest continues to be one of the major responsibility implemented in 2008. The Commission took proactive measures to resolve any complaints received, and simultaneously took regulative action to ensure that consumers will be able to enjoy safe and reliable electricity supply.

The Commission also cautioned the utility provider to ensure that immediate measures are taken to address the problems of maintenance failure, low installation quality and standard, and lack of security that tempt unauthorised entry into the public installation facilities. Reminders were issued since analysis by the Commission found 60% of electricity accidents were reported to have occurred at the utilities' installation facilities.

Most of the complaints received on the breach of law were due to matters related to abuse of electricity, illegal electricity supply activities, electricity accidents due to carelessness or the failure of competent persons to adhere to regulations set by the law and usage of electricity appliances which had not been approved.

The Commission would continue its initiative to resolve problems on unregistered installations, lack of competency control or management who are not aware of legal needs, while also having to implement actions to protect the interest of existing customers.

COMPLAINTS ON ELECTRICITY SUPPLY

The Commission received 334 complaints involving 144 supply services complaints and 190 supply quality complaints in 2008. This number is a small reduction compared to 372 complaints in 2007. From that total, 93.4% or 312 complaints were resolved.

Following the complaints received, several actions were taken by the Commission together with the utility provider such as:

- Streamlining measures or practices of utilities adopted by utilities provider;
- Explanation on the interpretation of the Act and Regulations applied in relation to the disputed issue; and
- The need for enhancement or decision making on specific fundamental issues.

Complaint Category		Total	Resolved		Unresolved	
			Total	%	Total	%
Supply Service						
a)	Electricity supply interruptions	21	18	86%	3	14%
b)	Application and connection of electricity supply	3	10	77%	3	23%
c)	Tariff and charges	2	1	50%	1	50%
d)	Electricity billing, metering, disconnection and reconnection of supply	49	44	90%	5	10%
e)	Safety of installations / wiring	22	19	86%	3	14%
f)	Rentice of transmission line or damages to TNB installations by third parties	25	22	88%	3	12%
g)	Public lighting, other matter on supply and customer services	12	11	92%	1	8%
	Total	**144**	**125**	**87%**	**19**	**13%**
Supply Quality						
h)	Overvoltage	188	186	99%	2	1%
i)	Power quality (dips, surges etc)	2	1	50%	1	50%
	Total	**190**	**187**	**98%**	**3**	**2%**
	Overall Total	**334**	**312**	**93%**	**22**	**7%**

Schedule 6: Statistic on Electricity Supply Services Complaints Received According to Category (2008)

The Commission set forth the following decisions as a method to standardise the solution procedures in handling related complaints such as:

i. Complaints on voltage surges that causes damage on consumers' electrical appliances seems to be a recurring issues. Several discussions were held with TNB to identify the fault that causes this problem. Resulting from this discussion, TNB undertook these measures:
   - Standardising installation method and the brand of Insulation Piercing Connector used; and
   - For cases where TNB is liable, the company had made compensation payment of RM217,720 for the 2007/2008 financial year. For cases without liability, ex-gratia payments of RM2,128 were made in the same financial year.

ii. Complaints regarding understated amount claims by TNB against consumers when the consumers' meter were found not to record the actual amount of electricity used. Several meeting were held with the TNB management to discuss related cases and TNB was directed to update the existing procedure, among others:

   a. To give a detailed explanation on the understated amount claims with a notice of claim to the consumer;
   b. to review operations cost ensuring that it is reasonable and matches the claimed amount;
   c. To handle issues pertaining to registered users and tenants, TNB is advised to implement awareness programmes through the mass media to inculcate awareness and to advise users on their responsibility as the owner and the tenant of the premise in the event that their meters were disturbed and preventive measures could be taken; and
   d. Enforcement measures taken giving focus on cases that causes substantial loses, recurring cases and cases involving certain syndicates.

COMPLAINTS ON PIPED GAS SUPPLY

A total of 341 complaints were received by the holder of Gas Usage Licence throughout 2008 and this is an increase of 12.17% compared to 304 complaints received in 2007. A total of 145 complaints or 42.52% were related to gas supply interruption. Complaints of leak were also reported to have increased to 7.48% as compared to 2007.

ENFORCEMENT, INSPECTIONS, AND INVESTIGATIONS

The enforcement activities by the Commission were conducted with the cooperation from several related organisations throughout 2008. Among the organisations who conducted joint enforcement activities with the Commission were the Ministry of Domestic Trade and Consumer Affairs (KPDN & HEP), MITI, the Electric and Electronic Association of Malaysia (TEEAM), and the utility parties such as TNB, SESB and GMSB.

Enforcement, inspections and investigation activities are being conducted to solve and cover key areas and priorities as follows:

- Premises selling unapproved electrical appliances for domestic use;
- Dishonesty in using electricity;
- Unregistered installations;
- Licensing;
- Competency in compliance towards the installation procedures;
- The work performance of the contractor and competent persons adheres to the set standard and regulation; and
- Inspection on existing gas installations.

Among the actions taken in 2008 following enforcement, inspections and investigation activities are as follows;

- 14 warning notice to seize the sales of unapproved electrical appliances;
- Five (5) companies are being charged in court and had pleaded guilty for dishonesty in using electricity,
- Three (3) cases are still being under trial; and
- Five (5) investigation papers were presented to the Deputy Public Prosecutor with the intention to charge the accused in court.

MONITORING OF ELECTRICITY DISTRIBUTION ACTIVITIES

The electricity distribution activities monitoring program has been amplified since 2007 with the objective of ensuring that all electrical distribution activities are conducted with valid license issued by the Commission, in line with the Section 9 of the Electricity Supply Act 1990. Monitoring is conducted regularly on premises supplying electricity from any installation utilities or for the use of other consumers. This initiative is in line with the Commission's duties to ensure that the supply of electricity is made at a reasonable price and the consumers' interest are protected.

Throughout 2008, a total of 34 directive letters were issued to premises reported to conduct electricity supply activities. Up to now, only six (6) of the 34 premises have not taken any action to abide by the licensing regulations.

ACCIDENTS DUE TO ELECTRICITY

In 2008, The number of fatality also decreases to 69 cases compared to 75 cases in 2007 and 79 cases in 2006. The number of fatal related accidents also declined to 33 cases compared to 38 cases in 2007 and 37 cases in 2006.

Monitoring programmes and efforts to increase awareness amongst the utilities provider has been enhanced to ensure that the electricity safety management system in public installations are further strengthen considering that the analysis conducted by the Commission recorded that 60% of electrical accidents are reported to occur in installation owned by utilities provider.

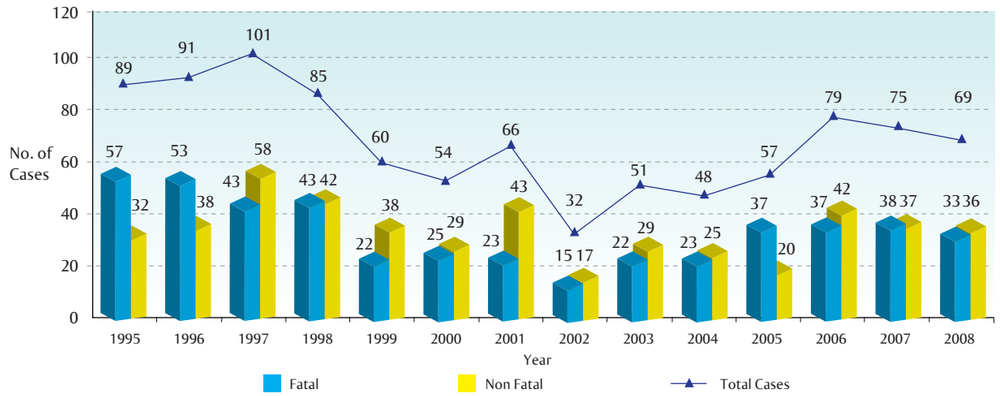


Table 16: Number or Electricity Accidents Reported for the Years 1995 to 2008

The rate of electricity accidents for every one million customers in Peninsular Malaysia and Sabah also declined from 12.74 in 2007 to 9.46 in 2008. Besides that, the fatal rate for every one million customers also declined to 4.52 in 2008 compared 6.46 in the previous year. Although performance was seen as better, there is still room for improvement so that it could be at par with the rate of several developed nations where only one fatality is reported for every one million customers.

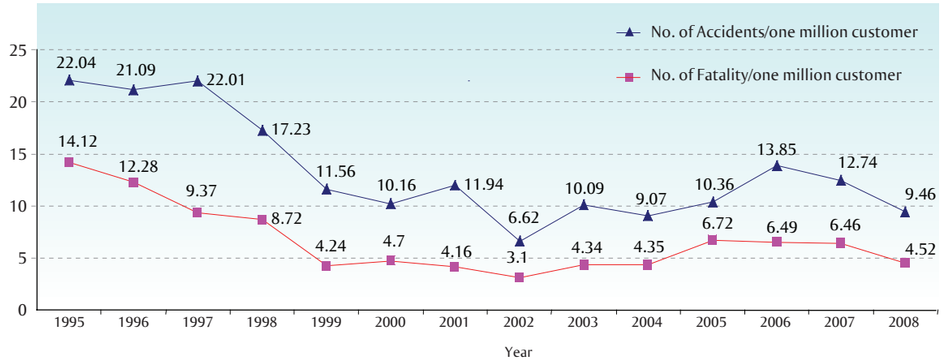


Table 17: Electricity Accident Rate for Every One Million Customers

Based on the analysis conducted by the Commission, 57.9% of accidents occurred within the utility installation vicinity such as the electrical substations, low and high voltage above ground lines and underground cable. A total of 15.6% of accidents occurred in domestic premises, 9.7% in industrial premises, 9% in commercial premises and 7.8% in government-owned premises such as schools and higher learning institutions.

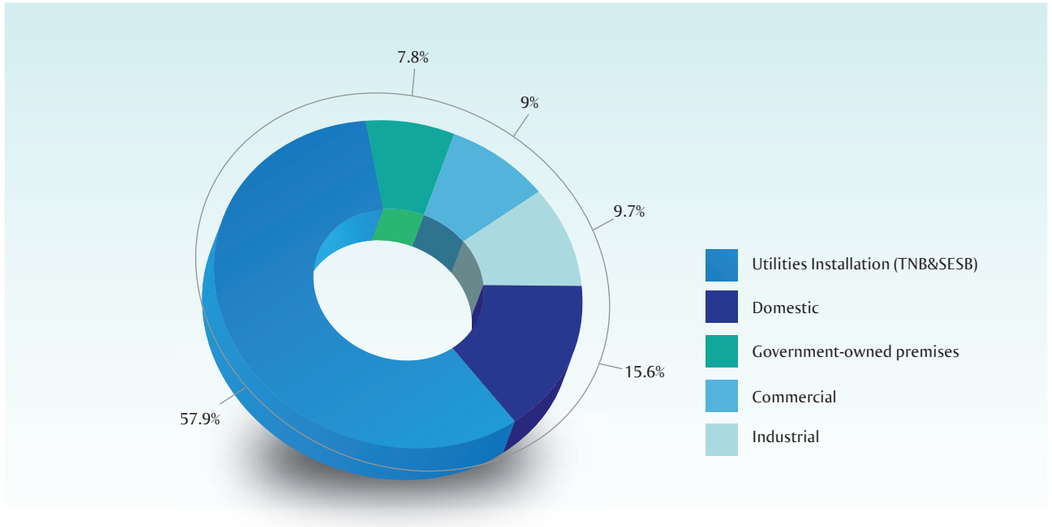


Table 18: Locations of Electricity Accidents for 2002-2008

Although there is a downward trend in the number of cases for electrical accidents reported between the period of 2006 to 2008, the Commission is still of the opinion that the number of electrical accidents could be further reduced if involved parties play their duties in line with the regulations stipulated within the Electricity Supply Act 1990. Based on the analysis conducted on the cause of accidents, it was found that faulty installations and maintenance, at 37.2%, is still the main cause of electrical accidents throughout that period. From the total number of cases, 32.1% of the accidents are caused by failure to adhere to safety procedures. Schedule 7 shows the causes of electrical accidents from 2002 to 2008.

Causes of Accidents	Percentage (%)
Faulty Installation / Maintenance	37.2
Failure to adhere to safety procedure	32.1
Trespassing at electrical installation	9.2
Civilians working activities near to transmission line	10.2
Misuse of wiring system	2.4
Faulty electrical equipment/appliances	1.8
Others	7.1

Schedule 7: Causes of Electrical Accidents in 2002-2008

In 2008, the Commission continues to implement programs that would reduce the rate of electrical accidents within our country based on the 2007-2010 strategic and action plan that uses the approach of strategic enforcement, review of legal matters, enhancing awareness and the increase in enforcement capacity. The enforcement of these action plans have contributed towards the reduction in accidents rate. In this aspect, the Commission hoped that the Government would approve the amended legal draft of the electricity safety regulation regime in 2009.

PIPED GAS ACCIDENTS

Three (3) accidents involving the supply of piped gas were reported to the Commission and has been investigated. One (1) case involved a leak in the natural gas PE line caused by drainage works by a civil contractor. The next case involved a leak in the natural gas pipeline in a kitchen of a condominium unit which led to a gas explosion. The third case involved a leak in a natural gas pipeline which was caused by erosion from a leaking water pipe.

As a preventive measure, amongst other, the Commission issued a directive for all license holder, gas contractors, gas competent persons and building management to conduct a thorough and detailed inspection on gas installations in residential buildings and to immediately repair any faults found. The Commission also strengthened its monitoring system on pipes gas system maintenance in buildings.

ELECTRICAL CONTRACTORS INFORMATION IN THE WEB PORTAL

In accordance to the Electricity Regulations 1994, electrical works must be conducted by contractors registered with the Commission to ensure electricity installation system and maintenance are in accordance with the regulation and standard set and follows the competent person's service requirement standard as stipulated by the regulation.

Beginning 2008, customers can verify the registration validity period for each contractor and acquire their service directly from these contractors via a contractor list made available in the Commission's website.

ENHANCING THE SKILLS OF COMPETENT PERSONS

In the effort to increase the level of skills among competent persons, and to ensure that they are always exposed to current development, the Commission embarked on several initiatives as below:

- Seminar to enhance awareness and understanding to the competent persons involved in the electricity supply industry on the application of MS IEC 60364:2003 Electrical Installations of Building, MS 1936:2006 Electrical Installations of Building - Guide To MS IEC 60364, MS 1979:2007 Electrical Installation of Building - Code of Practice and MS IEC 60038 Nominal Voltage for Low Voltage Supply System standards as guidelines for the installation of wiring in buildings;

- Exposure through campaigns, talks and dialogue session on the Electrical Wiring Guidelines in Residential Buildings so that they would have more understanding on the requirement and importance of implementing and ensuring a safe and proper wiring system; and

- Questions drafting workshop to add variety to questions in the theory competency examination for the Wireman and Chargeman category.

INCULCATING SAFETY AWARENESS

The Commission continues to give priority to enhancing awareness on the safety of electricity and gas among the public and industries. Several programmes were held throughout 2008, with focus on target groups such as customers in the commercial and domestic sectors, local authorities and related agencies.

Several key factors were highlighted for the target groups to focus on in order to ensure that the campaign objective of awareness creation is achieved such as:-

i. Understanding legal regulations;
ii. Fulfilling responsibility and ethics as competent persons;
iii. Enhancing expertise or skills related to current standards;
iv. The use of approved electrical and gas appliances; and
v. Understanding the dangers of electric shocks and gas combustions.

A total 76 seminars, dialogues and briefings were held in Peninsular Malaysia for information dissemination and inculcating awareness among the target groups. Through the seminars, dialogues and briefings, the Commission also received proposals and feedbacks on the policy, regulation, standard, practices and other issues related to the industry.

Safety information was also shared through the Commission's involvement in the local electronic media programmes. The Commission's website also feature a safety guideline as a reference for consumer.

The Commission also strives to enhance the public's knowledge on electrical safety. Two (2) types of buntings were issued for the public's information and this has been distributed and exhibited in shopping complexes and electrical goods outlets. (Bunting 1 and 2).

Buntings were produced to promote and encourage users to choose appliances that carries the SIRIM logo or label which ensures a guarantee on the safety aspect of the appliances purchased.

ISSUANCE OF **LICENSING CERTIFICATIONS FOR ELECTRICITY SUPPLY ACTIVITIES**

The Commission has issued 29 public distribution licence and three (3) Small Renewable Energy Programme (SREP) public licenses to the following companies :

No.	Licence Holder	Capacity (MW)
	Public Licence (Distribution):	
1.	GCH Retail (M) Sdn. Bhd.	
	i. Giant Mall Kelana Jaya, Petaling Jaya, Selangor.	6.114
	ii. GCH Retail (M) Sdn. Bhd., Kelang, Selangor.	3.30
	iii. GCH Retail (M) Sdn. Bhd., Senawang, Seremban, Negeri Sembilan.	2.12
	iv. Giant Hypermarket Sandakan, Sandakan, Sabah.	1.70
	v. GCH Retail (M) Sdn. Bhd., Shah Alam, Selangor.	4.20
	vi. GCH Retail (M) Sdn. Bhd., Kuantan, Pahang.	2.96
	vii. GCH Retail (M) Sdn. Bhd., Tampoi, Johor Bharu, Johor.	2.86
	viii. GCH Retail (M) Sdn. Bhd., Tebrau, Johor Bharu, Johor.	3.70
	ix. GCH Retail (M) Sdn. Bhd., Plentong, Johor Bharu, Johor.	4.20
	x. GCH Retail (M) Sdn. Bhd., Setapak, Gombak, Selangor.	2.68
	xi. GCH Retail (M) Sdn. Bhd., Cabang Tiga, Kuala Terengganu	3.30
2.	Dream Property Sdn. Bhd.	7.35
3.	BR Property Holdings Sdn. Bhd.	8.506
4.	Malaysia Airports Sdn. Bhd.	2.56
5.	Tanah Sutera Development Sdn. Bhd.	5.981
6.	Dijaya Land Sdn. Bhd.	11.03
7.	Lianbang Ventures Sdn. Bhd.	5.523
8.	Panglobal Insurance Bhd.	1.70
9.	Tesco Stores (M) Sdn. Bhd.	3.006
10.	Rakyat Holdings Sdn. Bhd.	2.44
11.	Malaysian Airline System Bhd.	25.00
12.	Menara Hap Seng Sdn. Bhd.	4.82
13.	Awona Land Sdn. Bhd.	4.10
14.	Reliable Capacity Sdn. Bhd.	3.60
15.	Amtrustee Bhd.	10.00
16.	AEON CO. (M) Bhd.	
	i. AEON Nusajaya, Pulai, Johor Bharu, Johor.	8.00
	ii. AEON Co. (M) Bhd, Seberang Perai Tengah, Pulau Pinang.	14.00
17.	1Borneo Management Corp. Sdn. Bhd.	20.00
18.	Pusat Tenaga Malaysia	0.92
	Public Licence SREP:	
1.	Sunquest Sdn. Bhd.	6.50
2.	Esajadi Power Sdn. Bhd.	
	i. Sg. Kadamaian, Kota Belud, Sabah.	2.00
	ii. Sg. Kaingaran, Tambunan, Sabah.	2.50
	iii. Sg. Pangpuyan, Kota Marudu, Sabah.	4.50
3.	MHES Asia Sdn. Bhd.	13.00

Schedule 8: List of Public Distribution Licence and SREP Public Licenses

ELECTRICAL COMPETENCY CERTIFICATION

In 2008, a total of 3413 candidates sat for various categories of competency examination. From that number, 1393 candidates have passed various category of competency examination.

Type of Examination	Application	Sat for the Exam	Passed
Chargeman	2725	2194	647
Chargeman (TNB)	177	177	78
Chargeman (INSTEP)	43	43	25
Wireman	1154	961	614
Electrical Supervisor	28	18	15
Competent Electrical Engineer	34	14	10
Electrical Services Engineer	11	6	4
Total	**4172**	**3413**	**1393**

Schedule 9: Candidates Who Applied and Sat for the Competency Test in 2008

Besides competency theory examination, the Commission also conducts low voltage practical examination for new or repeat candidates. 5,643 candidates have sat for the examination. A total of 5,349 Competency Certification were issued in 2008, with 3,845 certification being issued by certified institutes and the rest, by the Commission.

	Certification Category								
	PW	END	PJE	G/S	PK	PE	JP	JK	TOTAL
Headquaters	-	-	102	-	-	10	5	15	**132**
Regional Offices	470	198	632	64	8	-	-	-	**1372**
Accredited Institution	2592	-	1240	13	-	-	-	-	**3845**
TOTAL	**3062**	**198**	**1974**	**77**	**8**	**10**	**5**	**15**	**5349**

Schedule 10: The total of Electricity Competence Certification Issued in 2008

REGISTRATION OF ELECTRICAL COMPETENT PERSONS

A total of 15,174 competent persons were registered to become part of the installation, contractors, industrial, commercial or institutional sectors with 3,696 being new registrations and 11,478 being renewal of registrations.

COMPETENCY CERTIFICATION AND REGISTRATION OF GAS COMPETENT PERSONS

For 2008, the Commission had issued 29 Gas Competency Certification consisting six (6) Gas Engineering Supervisor and 23 Gas Chargeman (Class I, II, III). Since 2002, the Commission has issued 314 Gas Competency Certification. From that number, 303 have registered with the Commission in 2008.

Type of Registration	Renewal	New Registration	Total
Gas Engineer	37	3	**40**
Gas Engineering Supervisor	83	6	**89**
Gas Chargeman	-	-	**-**
Class I	93	18	**111**
Class II	48	4	**52**
Class III	6	5	**11**
Total	**267**	**36**	**303**

Schedule 11: The Number of Competent Persons Registered with the Commission in 2008

GAS COMPETENCY EXAMINATIONS

Candidates who do not fulfil the criteria for exemption, would have to sit for a written test. Candidates who pass the written examination will be called for an interview for the purpose of Competency Certification issuance. Two sessions of written examination were conducted in 2008 specifically on March 18, 2008 and November 11, 2008 with five (5) candidates having sat for the exams.

Candidates who qualify for the interview are those who have passed the written examination, or those exempted from the examination or those who have passed courses on gas pipeline organised by accredited institutions. In 2008, 18 interview sessions were held and 44 candidates were interviewed.

COMPETENCY TRAINING INSTITUTE ACCREDITATION

A total of 33 institutions were accredited to offer electrical competency courses and examination. The number is an increase of 10 new institutions compared to the number of accredited institutions in 2007. The institutes are as follows:

No.	Institution	Course Category	Type of Category
1.	Institut Latihan Perindustrian (ILP) Mersing, Johor.	PW2	Full Time
2.	Akademi Yayasan Basmi Kemiskinan Selangor.	PW2	Full Time
3.	Institut Kemahiran Belia Negara Kinarut, Sabah.	A1 A4	Part Time Full Time and Part Time
4.	Institut Latihan Perindustrian Sandakan, Sabah.	PW2	Full Time and Part Time
5.	Institut Kemahiran Baitulmal MAIWP, Kuala Lumpur.	PW4	Full Time
6.	Pusat Giatmara Batu Gajah, Perak.	PW2	Full Time
7.	Pusat Pembangunan Tenaga Industri Johor (PUSPATRI), Pasir Gudang, Johor	A0	Full Time and Part Time
8.	Akademi Binaan Malaysia Wilayah Timur, Kuala Berang, Terengganu.	A0 A1	Part Time Full Time
9.	Pusat Giatmara Pasir Mas, Kelantan.	PW2	Full Time
10.	Institut Teknologi Petroleum Petronas (INSTEP), Batu Rakit, Terengganu.	B0 A0	Full Time and Part Time

No.	Institution	Course Category	Type of Category
11.	Pusat Latihan Teknologi Tinggi (ADTEC), Bukit Kemuning, Shah Alam, Selangor.	Low voltage system (with aerial line and power station and synchronizing.)	
12.	Institut Kemahiran MARA Sik, Kedah.	A1(Special)	Full Time two (2) years
13.	Universiti KL-British Malaysian Institute, Gombak, Selangor.	A1 and A4	Additional Number of Trainees
14.	Pusat Giatmara Setiu, Kelantan.	PW2	Full Time
15.	Pusat Giatmara Kalumpang, Selangor.	PW2	Part Time
16.	Pusat Giatmara Sepang, Selangor.	PW4	Full Time and Part Time
17.	Institut Latihan Perindustrian Kuantan, Pahang.	PW4	Full Time and Part Time
18.	Kolej Yayasan Melaka.	PW2	Full Time and Part Time
19.	Institut Latihan Perindustrian Kota Bharu, Kelantan.	PW2	Part Time
20.	Pusat Giatmara Permatang Pauh, Pulau Pinang.	A0	Full Time and Part Time
21.	Pusat Komuniti Giatmara Pongsu Seribu, Pulau Pinang.	PW2	Part Time
22.	Akademi Binaan Malaysia Wilayah Tengah, Kuala Lumpur.	PW4	Full Time and Part Time
23.	Institut Latihan Sultan Ahmad Shah (ILSAS), Bangi, Selangor.	Cable Jointer	Full Time
24.	Institut Latihan Perindustrian (Bukit Katil) Melaka	PW4 A0	Full Time Part Time
25.	Pusat Giatmara Sik, Kedah.	PW2	Full Time
26.	Pusat Giatmara Sandakan, Sabah.	PW4	Full Time Part Time
27.	Pusat Giatmara Semporna, Sabah.	PW2	Full Time
28.	Pusat Giatmara Bachok, Kelantan.	PW4	Full Time Part Time
29.	All IKM which conducts Wireman and Machine Operator courses (PW2, PW4, A1 and A4).	PW2 PW4 A1 A4	Part Time Part Time Part Time Part Time
30.	Pusat Giatmara Kluang, Johor.	PW2	Full Time
31.	Pusat Giatmara Kulim/Bandar Baharu, Kedah.	PW2	Full Time
32.	Pusat Giatmara Permatang Pauh, Pulau Pinang.	PW4	Full Time
33.	Pusat Giatmara Pendang, Kedah.	PW2	Full Time Part Time

High Voltage System (33kV/11kV)

B4 : High Voltage System

B1 : High Voltage System (Without High Voltage Power Station

B0 : High Voltage System (Without High Voltage Aerial Line and High Voltage Power Station)

B0-1 : High Voltage System (Without High Voltage Aerial Line and High Voltage Power Station; and Without Low Voltage Synchronizing of Generators)

B0-2 : High Voltage System (Without High Voltage Aerial Line and High Voltage Power Station; and Without Low Voltage Aerial Line and Low Voltage Synchronizing of Generators)

B0 TNB : TNB / SESB Staff

Low Voltage System (Below 1000V)

A4 : Low Voltage System

A4-1 : Low Voltage System (Without Synchronizing of Generators)

A4-2 : Low Voltage System (Without Aerial line and Synchronizing of Generators)

A1 : Low Voltage System (Without Power Station)

A0 : Low Voltage System (Without Aerial line and Power Station)

Electrical Wiring

PW1 : Single Phase with testing endorsement

PW4 : Four Phase with testing endorsement

Schedule 12: Accredited Competency Training Institute

For gas competency certification, no accreditation has been issued for competency courses. An application was received from Kolej Teknologi dan Profesional (KTP), Indera Kayangan, Perlis to offer a course for Class II Gas Chargeman but it is still under consideration.

REGISTRATION OF ELECTRICAL CONTRACTORS

Electrical works can only be undertaken by contractors registered with the Commission. The registration is compulsory to ensure installation and maintenance of electrical works are done in accordance to the Electric Regulation 1994. In 2008, the total number of registered electrical contractors was 3,868, which is a decline compared to the total of 5,157 registered contractors in 2007.

Types of Contractor	Number
Electrical Service Contractor	138
Electrical Contractor (Class A,B,C,D)	3,462
Electrical Switchboard Contractor	7
Switchboard Manufacturer (high and low voltage)*	138
Renovation Contractor	118
Private Wiring Unit	5
Total	**3,868**

Schedule 13: The Number of Registered Electrical Contractors

REGISTRATION OF GAS CONTRACTORS

In 2008, a total of six (6) new piped gas-contracting firms were registered. Two (2) of them were Class A contractors, two (2) Class B contractors, one (1) Class C contractors and one (1) Class D contractors.

Types of Gas Contractor Registration	Renewal	New Application	Total
Class A	46	2	**48**
Class B	41	2	**43**
Class C	22	1	**23**
Class D	1	1	**2**
Total	**110**	**6**	**116**

Schedule 14: The Number of Renewals and New Applications of Gas Contractors in the Year 2008

ELECTRICAL APPLIANCES APPROVAL

In 2008, the Commission received and processed 3403 new applications for Certificate of Approval for the intention to import and manufacture domestic electrical appliances. A number of 1948 import application was approved, 31 of that for the purpose of exhibition. Meanwhile, 689 applications to manufacture were approved. A total of 2645 renewal application for Certificate of Approval to import and manufacture were received and 2263 of these applications were approved.

Renewal Category	Total	Application Category	New Application	
			Received	Approved
Import Purpose	1459	Import Purpose	2617	1944
Manufacture Purpose	804	Manufacture Purpose	786	689
Number of Applications Received	2645	Total	3403	2633

Schedule 15: Certificate of Approval and Renewed Certificate of Approval

The Commission also issued 321 letters for non-controlled electrical appliances to applicants bringing in appliances not listed under the 31 categories of controlled items. The Commission had also approved applications to import or bring in controlled electrical appliances into the country for private or personal use.

It is the obligation of the importer and manufacturer to label the electrical appliances with the SIRIM label as stipulated under Regulation 98, Electric Regulations 1994. The importer has to undergo consignment test to obtain the label. The label will be awarded if the importer passes the test.

Throughout 2008, 10 categories of appliances involving 18 models had failed the consignment test. Show cause letters had been issued to 16 companies. The failures were mostly due to the reasons that the components of these appliances had been modified or changed to unapproved components. The movement of the unsafe electrical appliances is monitored so that it will not be marketed in the country.

GAS EQUIPMENT APPROVAL

No approval was issued for gas fittings, appliances or equipment manufacturer. For importer of gas equipment, only one (1) approval was issued in 2008.

However, 11 type of gas fittings, appliances or equipment were approved in that year. Gas pipeline systems that were approved includes polyethylene fittings, meter, ball valve, regulator and gas leak detector.

INSTALLATION REGISTRATION AND APPROVAL

Electricity installation that consists of electrical appliances, supply line, equipment and those related to it should be designed, fabricated, tested and commenced for work before it could be used by end users. All electricity installations registered in Peninsular Malaysia and Sabah and those with registration validity up to 2008 totalled to 8171 installations with 968 of that being new registrations and 7,203, renewed registration.

Meanwhile, the number of private licenses issued by the Commission stands at 1555 license.

Gas pipeline installation would now require the operational and fabrication approval from the Commission. In 2008, the number of approvals to fabricate LPG pipeline system base on applications received in 2008 was at 658. For the natural gas system, the approval issued was at 182, including approval to install metering stations and regulating stations.

APPROVAL TO MANAGE GAS PIPELINE SYSTEM

A total of 767 approval to operate were issued based on the application received in 2008 compared to 643 in 2007. The total number of approval for the LPG system in 2008 was 580 while for the natural gas system; the total number of approval issued was at was 187. The approvals issued includes approval to operate meter stations and all these approvals are divided into Class I, II and III which is based on the maximum installation operating pressure, as allocated in the Gas Supply Act 1993.

EFFICIENT MANAGEMENT OF ELECTRICAL ENERGY REGULATION 2008

Efficient Management of Electrical Energy Regulation 2008 has been gazette and enforced on December 15, 2008.

This regulation is applicable to all electricity users or private license holders who uses / generate electricity up to or more than 3,000,000 kWj for 6 consecutive months.

Among the matters to be adhered to under the regulation are:

i. The need to appoint energy manager at their respective installation;
ii. The responsibility of the appointed energy managers are to manage specified tasks related to effective usage of electricity; and
iii. The need to present a report on electricity effectiveness at the installation to the Commission.

In line with the enforcement of the regulation, the Commission has prepared a detailed action to ensure the smooth running, implementation and enforcement of the said regulation. Besides preparing the application process and procedure for the registration of electricity manager, the Commission also conduct special briefing through a series of talk and dialogue session with parties that are directly involved with the regulation.

STIPULATION OF THE ENERGY EFFECIENCY STANDARD OF REFERENCE AND CRITERIA

After the introduction of the efficiency performance standard for refrigerators in 2005, implemented a new rating system for other electrical appliances such as insulator, domestic fan, air conditioner, lighting and television.

Working groups for these electrical products were formed with the participation of representatives from manufacturers and importers, SIRIM, PTM, FMM and professional organisations and related industries. The working groups were formed to specify the energy efficiency performance criteria for the electrical products based on a test standard recognized as a reference for local manufacturers, importers and members of the public. This group also discussed the specifications for energy efficiency rating system for the purpose of energy efficiency labelling by local manufacturers and importers, and eligibility conditions to be followed by the importers and manufacturers for the purpose of obtaining energy efficiency incentives announced by the Government in the 2009 Budget.

ENERGY EFFICIENCY PERFORMANCE RATING FOR REFRIGERATORS

The STAR rating for refrigerators is a voluntary energy efficiency rating and labeling system which has been introduced since 2005. In 2008, 13 applications from manufacturers to obtain the STAR rating for refrigerators based on energy efficiency performance were processed and approved. From that number, 12 refrigerator models gained approval with 5 STAR rating while one (1) obtained 3 STAR rating.

Overall, 28 two door refrigerator models with STAR ratings were approved for the local market, where the manufacturers are obligated to fix an energy efficient label specified with the information on their respective STAR rating on each refrigerator. Information on the brand, model and STAR rating of the refrigerator can be found on the Commission's website.

STRENGTHENING THE INTERNAL ORGANISATION

STRENGTHENING OF SERVICE DELIVERY

The Commission started the operation of the ninth regional office for the Melaka and Negeri Sembilan region on May 2, 2008. With the operation of this office, the Commission could enhance its service delivery to its customers in the states which prior to that has to deal with the Central Region Office in Petaling Jaya, Selangor.

To continue to upgrade its delivery service more effectively, the Commission had integrated the ECOS system with the E-PERMIT and BLESS systems. The systems developed by MAMPU through the PERMUDAH initiative could facilitate the licensees to have online access for the services of the Commission. Besides that, the Commission also moved a step further with the introduction of the payment for GAS competent people online via CIMB Clicks and Online Bazaar.

A system to support the administration and management system in the Commission is being developed and has reached 80 per cent completion. The system is known as E-Services, which encompasses online services such as E-Cuti, the bookings of vehicle or E-Tempahan, meeting rooms and refreshment, room and IT equipment, and souvenirs. In addition, E-Services also offers services for Training Application, complaint on ICT issues and damaged goods. It facilitates the staff's duties efficiently and reduces the cost of paper consumption in the long run.

Simultaneously, in order to streamline and facilitate the Commission's administrative functions, the application of online booking for the Commission's logistic facilities via online has been implemented using an open source application linked to the Commission's intranet page.

The usage of this online booking was a temporary measure before the E-Services application was developed. These efforts had clearly resulted in an administration that is efficient, orderly and effective.

The Commission had also conducted inspections, maintenance and repair works to ensure all office facilities and equipment are in good condition. This optimized the usage of all resources for prevention exercises and enhance the effectiveness of service delivery.

This programme was well planned and was implemented to reduce the maintenance cost of office facilities and equipment.

The Commission's online service portal receives an upgrade through the incorporation of a search engine that has the capability to catalogue the content of stored documents. This enable user to acquire specific documents fast and efficiently. An online project management system was also introduced which is DotProject. Through this system, all projects implemented by the Commission would be able to be managed efficiently and monitored consistently. The email system and its application has also been switched to Novell Groupwise that uses the Merak application. With the new e-mail application, employees could utilize various functions such as document sharing via the I-Folder application, push mail function via the mobile server, e-directory and various other functions.

To ensure that the Commission is up to speed with the advancement of communication technology, its Wide Area Network (WAN) was also upgraded from the COINS line to the IPVPN service. The capability of the Commission's bandwidth was also enhanced with the shift to the IPVPN service.

THE REVIEW OF EMPLOYMENT TERMS AND CONDITIONS AND EMPLOYEE COMPETENCY DEVELOPMENT

The Commission started to review the organisation structure and the Employment Terms and Conditions in 2007. The review, which included manpower planning, job evaluation and the new terms and condition, was approved by the Minister of Energy, Water and Communication on January 2008. The implementation of the terms and condition, which included a better salary scheme and recruitment and based on competency was accepted collectively by all employees of the Commission.

The review also allocated the formation of 50 new posts to enhance the capacity of the Commission in implementing its functions. Year 2008 also saw the intake of 24 new contract employees in the effort to strengthen the capacity of the Commission. Employee intake exercise was continued in 2009 to fill the other positions in various departments.

A learning and development structure has been planned for the executives who joined the Commission in an effort to enhance human capital in terms of technical knowledge and job competency. This was done to ensure that the Commission produces employee capable of providing international level of service. The organisation review also saw several internal exchange of employees conducted in accordance to their field of expertise.

EMPLOYMENT SAFETY AND HEALTH POLICY

The Commission is committed to protect the safety and health of its employees. This effort was implemented through the legislation of the Safety and Health Policy, the formation of the Committee for Safety and Health and the sub committee for Emergency Action Group and the formation of other safety enhancing and monitoring programmes. For a start, the Commission's website was utilised to disseminate health and safety information.

CALENDAR OF **ACTIVITIES 2008**

MONTH	DAY	EVENT
JANUARY	1	The usage of nominal voltage of 230/400V with a range of +10% - 6%, in line with the Malaysian Standard MS IEC 60038 related to the standard voltage for low voltage supply system in Malaysia.
	11	Limited Competency Briefing for TNBD.
	15	The Visit of Commission Members to Pulau Pinang, Kedah & Perlis regional office cum Commission Meeting No. 1 Year 2008.
	15	Energy Commission Meeting No.1/2008 at the Energy Commission Office, Butterworth, Pulau Pinang.
	18	Visit by Energy and Water Utilities Regulatory Authorities (EWURA) Tanzania to The Energy Commission.
	21-25	The Energy, Water & Communication Minister approved the Employee Service Terms and Conditions resulting from the review of the organization structure and Employee Service Terms and Conditions in 2007. Electrical Competency Examination (Practical & Oral) - Categories B0 to B4.
	28	Limited Competency Briefing / Certification to INSTEP Petronas.
	31	Energy Commission Meeting No.2/2008 in Kuala Lumpur.
FEBRUARY	12	Farewell Dinner for Dr. Muhamad Bin Hamzah, former Senior Director of the Department of Economy and Industrial Development.
	12	Electrical Competency Examination (Theory) – Machinery Operator TNB.
	18	Gas Competency Examination.
	21	ASEAN Regulators Forum and the First Meeting of ASEAN Power Grid Consultative Committee (APGCC) in Jakarta, Indonesia.
	21	One-day programme with the customers of Energy, Water and Communication Ministry in Kluang, Johor.
	25	Energy Commission Meeting No.3/2008 in Kuala Lumpur.
	25	Standard Accounting System For Government Agencies (SAGA) Implementation Project for Phase II at the Energy Commission.
	25-29	Electrical Competency Examination (Practical and Oral) - Categories B0 to B4.

MONTH	DAY	EVENT
MARCH	6	Electrical Competency Examination – Electrical Supervisor.
	25	Appreciation Ceremony for YABhg. Tun Dr. Lim Keng Yaik, former Energy, Water and Communication Minister.
	25	Energy Commission Meeting No.4/2008 in Kuala Lumpur.
APRIL	19 -24	Participation in the Energy, Water and Communication Minister's delegation to the 11th International Energy Forum in Italy. Working visit to Prysmian Cable & System, Naples.
	23	Gas Safety and Competency Briefing in ILP Mersing, Johor.
	24	Briefing on the need of Competency in Factories to The Cement & Concrete Association of Malaysia.
	29	PJ B4 Course Preparation Planning Briefing and amendment of limited Chargeman certification to INSTEP Petronas.
MAY	2	The Commission's Ninth Regional Office, Melaka & Negeri Sembilan Regional Office commence operation.
	8	Electrical Competency Examination (Competent Electrical Engineer & Electrical Service Engineer).
	9	Gas and Electricity Safety Campaign in Politeknik Sultan Haji Ahmad Shah, Kuantan, Pahang.
	12	Energy Commission Meeting No.5/2008 in Kuala Lumpur.
	13	Energy Consultant Panel Meeting No.1/2008.
	14	Electrical Competency Examination (Theory) – Chargeman.
	15	Electrical Competency Examination (Theory) - Wiremen.
	15	Institution Certification & Competency Examination Briefing to GIATMARA.
	20-23	Electrical Competency Examination (Practical and Oral) - categories B0 to B4.
	21	Electrical course briefing to Eckert Schools, Jerman.
	27	Electricity and Gas Safety Campaign at ILP Kepala Batas, Pulau Pinang.
	28	TNB Competency Briefing/Certification to ILSAS, TNB.
JUNE	2-5	Electrical Competency Examination (Practical and Oral) - categories B0 to B4.
	9	Visit by Lagenda College to the Energy Commission.

MONTH	DAY	EVENT
JUNE	10	Gas and Electricity Safety Campaign at Sekolah Menengah Teknik Alor Setar, Alor Setar, Kedah.
	10	Initial Upgrading of PJ Elektrik Grades R17, R22 and R24 Service Scheme Briefing to the Public Service Department .
	13	High Voltage Competency Briefing to the Malay Electrical, Electronic and Mechanical Contractor Association Malaysia (PERKEM).
	17 & 18	Electricity Summit 2008 co-organised by the Energy Commission and the Energy Council of Malaysia (ECOM) at the Kuala Lumpur Convention Centre.
	19	Energy Commission Meeting No.6/2008 in Kuala Lumpur.
	25	Gas Safety and Competency talk at Sekolah Menengah Kebangsaan LKTP, Belitong, Kluang, Johor.
JULY	1	The new electricity tariff is announced.
	1	The enforcement of installation guidelines (enforcement of 3 standards - MS IEC 60364:2003, MS 1936:2006 and MS 1979:2007.
	2	Formation of Energy Council of Malaysia (ECOM).
	8	Tabling of paper work at the 9th Hitachi Young Leaders Initiative, Jakarta.
	10	Electricity and Gas Safety Campaign at Sekolah Menengah Slim River, Perak.
	11	Tariff review for natural gas supplied by Gas Malaysia Sdn. Bhd.
	15	Asian Power Forum 2008
	16	Gas safety Campaign at Sekolah Menengah Tengku Ampuan Afzan, Kuantan, Pahang.
	23	Briefing on the Proposal for a Reinforcement Course for Competent persons to YBS-EPSTAR.
	29	Energy Commission Meeting No.7/2008 in Kuala Lumpur.
	29	Gas Safety Campaign at IKM Tan Sri Yahya Ahmad, Pekan, Pahang.
	30	The Energy Commission appoints PricewaterhouseCoopers Advisory Services Sdn. Bhd. to undertake the second (2) management and engineering audit on GMSB.
AUGUST	5	Competency Enhancement Seminar with Industry Competent Persons in Ipoh, Perak.
	7	Fix the power rate from 0.85 to 0.9 for users still using high voltage supply of 132V and above.
	7 - 10	Asean Minister of Energy Meeting (AMEM), Bangkok
	8	Institution PW3/PW4, A4 and B0 Certification Briefing to IKM, MARA.

MONTH	DAY	EVENT
AUGUST	12	Electrical Competency Examination (Theory) – Chargeman TNB.
	12	Briefing of Operational Plan Master Plan for Training & Skills Development Malaysia 2008-2020 to the Human Resource Ministry.
	14	Electric Safety Seminar (The need for the registration of Installation, Contractor and Competent Persons in Pulau Pinang).
	18-22	Electrical Competency Examination (Practical and Oral) - categories B0 to B4.
	21	Reinforcement Course Briefing to TNB staff to ILSAS, TNB.
	21	Briefing on learning method for Application Module (maintenance management) at the Energy Commission to Pejema & Cworks System Berhad.
	26	Gas and Electricity Safety Campaign at Sekolah Menengah Teknik Sg Buloh, Selangor.
	27	Electrical Competency Examination (Competent Electrical Engineer and Electrical Services Engineer)
	28	Electrical Competency Examination (Competent Electrical Engineer and Electrical Services Engineer)
SEPTEMBER		Safety and Health Policy is introduced.
	9	Energy Commission Meeting No.8/2008 in Kuala Lumpur.
	22	Electrical Competency Examination- Electrical Supervisor.
	23	Electrical Competency Examination (Competent Electrical Engineer & Electrical Services Engineer)
	26	Energy Commission Special Meeting No.1/2008 in Kuala Lumpur.
OCTOBER	14 - 15	National Utilities Summit at Hotel Nikko, Kuala Lumpur.
	21 - 22	Power Gen Asia 2008 at Kuala Lumpur Convention Centre.
	22	Adoption of electric gate installation method circular MS IEC 60335-2-76:2007.
	22	Aidil Fitri 1429H Open house hosted by the Ministry of Energy, Water & Communication (KTAK) at Tropicana Golf & Country Resort, Petaling Jaya.
	28	Gas Safety Talk, Universiti Malaysia Pahang, Kuantan, Pahang.
	29	Competency Enhancement Seminar with Institution Competent Persons in Permatang Pauh.
	29-31	Electrical Competency Examination (Practical and Oral) - categories B0 to B4.

MONTH	DAY	EVENT
NOVEMBER	4	Gas and Electricity Safety Campaign at Majlis Bandaraya Shah Alam, Selangor.
	5-7	Electrical Competency Examination (Practical and Oral) - categories B0 to B4.
	10	Exhibition in conjunction with Energy Efficiency Awareness Programme at One Utama, Petaling Jaya.
	11	Visit by participants from the Electrical Safety Training organized by Global Infoskills Sdn. Bhd. from Sudan National Electrical Corporation to the Energy Commission.
	11	Gas Competency Written Examination.
	11	Electrical Competency Examination (Theory) - Chargeman INSTEP Petronas.
	20	Energy Commission Meeting No.9/2008 in Kuala Lumpur.
	20	Competency Enhancement Seminar with Industry Competent Persons in Kuantan, Pahang.
	22	'*Sehari Bersama Pelanggan*' programme with Energy, Water & Communication Ministry at Dewan Alamanda, Jasin, Melaka.
	23 - 24	Visits by the Minister of Energy, Water & Communication together with his officials and the Commission to Indonesia.
	26 - 27	Competency Enhancement Seminar with Institution and Industry Competent Persons in Kuala Terengganu, Terengganu.
	27	Technical Visit to Stesen Janaelektrik Jimah Energy Ventures Sdn. Bhd.
		The Preliminary Assessment on the Introduction of a Competitive Electricity Market is completed by PA Consulting Group Sdn. Bhd.
DECEMBER	1	YBhg. Dato' Dr. Ali bin Hamsa is appointed as Commisson member.
	2	Electrical Competency Examination (Theory) – Chargeman INSTEP Petronas.
	15	Action Plan to implement Efficient Management of Electricity Energy Regulation is gazette and enforced.
	16	Working visit of Badan Pengatur Hilir Minyak dan Gas Bumi Indonesia (BPH Migas) to the Energy Commission.
	17	Competency Enhancement Seminar with Institution Competent Persons in Melaka.
	18	Competency Enhancement Seminar with Industry Competent Persons in Melaka.
	18	Energy Commission Meeting No.10/2008 in Kuala Lumpur.

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Domicile in Malaysia

Registered Office:

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FINANCIAL STATEMENT

for the year ending 31st DECEMBER 2008

BALANCE SHEET

as at December 31, 2008

	Note	2008	2007
		RM	RM
Property, fittings and equipment	3	26,934,512	13,841,300
Investment		91,000	91,000
Current Asset			
Other reveivables	4	190,504	188,704
Cash and cash equivalent	5	178,166,879	162,632,377
		178,357,383	162,821,081
Current Liabilities			
Other payables		2,814,990	1,116,075
Tax payable		2,109,812	1,235,270
		4,924,802	2,351,345
Current Nett Assets		173,432,581	160,469,736
		200,458,093	174,402,036
Financed by:-			
Accumulated funds	6	200,458,093	174,402,036

Notes on pages 83 to 89 are part of financial statement.

INCOME AND EXPENDITURE STATEMENT

for the year ending December 31, 2008

	Note	2008	2007
		RM	RM
Income			
Fees and charges		54,963,023	53,865,498
Interest income		5,430,985	4,728,573
Other Income		9,150	2,154
		60,403,158	58,596,225
Less: Expenditure			
Staff costs	8	15,226,517	12,524,945
Administration expenditure		10,113,973	7,763,431
Depreciation	3	625,298	651,582
Miscellaneous operations expenditure		6,829,790	1,635,649
		32,795,578	22,575,607
Surplus before taxation		27,607,580	36,020,618
Taxation	7	(1,551,523)	(1,160,604)
Net income excess for the current year		26,056,057	34,860,014

Recognition of Profit and loss statement

The Energy Commission has no other profits and losses besides surplus of income for the current year.

Notes on pages 83 to 89 are part of financial statement.

CASH FLOW STATEMENT

for the year ending December 31, 2008

	2008 RM	2007 RM
Cash flow from operational activities		
Surplus before taxation	27,607,580	36,020,618
Adjustment for:		
Interest income	(5,430,985)	(4,728,573)
Depreciation	625,298	651,582
Operational profit before change in working capital	22,801,893	31,943,627
Change in working capital:		
Other receivables	(1,800)	(15,360)
Other payables	1,698,915	142,967
Cash Generated from operational activities	24,499,008	32,071,234
Income Taxes Paid	(676,981)	(906,748)
Net cash generated from operational activities	23,822,027	31,164,486
Cash flow from investment activities		
Property procurement, equipment	(13,718,510)	(13,195,377)
Interest received	5,430,985	4,728,573
Net cash generated from operational activities	(8,287,525)	(8,466,804)
Net cash addition and cash equivalent	15,534,502	22,697,682
Cash and cash equivalent in the beginning of year	162,632,377	139,934,695
Cash and cash equivalent at year end	178,166,879	162,632,377
Cash and cash equivalent comprised of:		
Cash and bank balance	11,305,897	8,738,672
Deposits in licensed banks	166,860,982	153,893,705

Notes on pages 83 to 89 are part of financial statement.

NOTE ON THE FINANCIAL STATEMENTS

1. Principal activities

The Energy Commission is a regulatory agency for the monitoring and development of the energy sector. The Energy Commission is directly responsible in supervising and monitoring energy activities including monitoring all licensed individual under the Energy Commission Act, 2001.

This financial statement had been approved and released for distribution by the members of the Energy Commission on 10 August 2009.

2. Important Accounting Policies

The following accounting policies were adopted by the Energy Commission and it is in line with the policies adopted in previous years.

(a) Accounting foundation

This financial statement was prepared based on the historical cost convention and accounting practices accepted in Malaysia.

(b) Property, fittings and equipment

Property, fittings and equipment stated at cost less accumulated depreciation, if any.

Depreciation

Depreciation for property, fittings and equipment is calculated based on the basic linear method on the estimated usage period of the asset. Property, fittings and equipment under construction will not be depreciated until the building is completed.

The annual rate of depreciation is as follows:

Office equipment	15%
Application system and computer	33⅓%
Motor vehicle	20%
Furniture, furnishing and renovation	20%

2. **Summary of key accounting policy (continued)**

(c) **Investment**

Investment is club membership used by the staff.

Long-term investment is stated at cost. Provisions are made when the Members agree that there are depreciation factor on the value of the investment.

(d) **Receivables**

Receivables are acknowledged at cost.

(e) **Cash and cash equivalent**

Cash and cash equivalent consist of cash money, balance and deposits in banks and investment with high liquidity rate which does not present physical risks on the change of investment value.

(f) **Payables**

Creditor is acknowledged at cost.

(g) **Depreciation**

The carry over value of the assets of the Energy Commission and its financial assets are reviewed on each balance sheet date to determine whether there are signs of depreciation. If there are signs, procurement value will be estimated. The losses due to depreciation will be stated in the income statement unless the carry over value of the asset has been revalued where it will be stated in the reserves. Losses due to depreciation are acknowledged when the wear and tear value of the assets or assets owned by cash generating unit is more than its amortization value.

Amortization value is the bigger value between the net sale price of the asset and its wear and tear value. In determining the wear and tear value, the estimated future cash value will be discounted to the current value based on the discount rate before tax which shows the current market valuation on the current cash

value and specific risks on the asset. For assets that do not generate a big portion of its cash flow by itself, amortization is determined for assets owned by the cash-generating unit of the asset.

For other assets, depreciation will be re accounted for when there are changes in the estimation used to determine the amortization amount.

2. **Summary of key accounting policy (continued)**

(g) **Depreciation** *(continued)*

The losses on depreciation will be recovered to the asset carry over value level not more than the original carry over value after taking into consideration the depreciation as if the devaluation losses have never been accounted for.

Recovery will be accounted for in the income statement, unless the recovery is accounted for on the revalued asset, it will be accounted for on the equity.

(h) **Income Tax**

Tax in the income statement consists of current year tax and pending taxes. Income tax is acknowledged in the statement unless it is related to matters acknowledged in the income statement unless it is related to matters acknowledged in the equity.

Current tax expenditure is the expected tax payment on taxable income for the current year, based on the tax rate gazette or mostly gazette on the balance sheet date, and any variation to the tax payment for the previous year.

Pending tax is allocated using the liability method for all differences between asset tax rate and liability and carry over value in the financial statement. Temporary difference is not allowed for taxation.

The allocated amount of pending tax is based on realization or solution for the carry over value of the asset and liability, based on the gazette tax rate or mostly gazette on the date of balance sheet.

Pending tax asset is only acknowledged when it is expected that the profit to be taxed in future can be derived from assets used.

2. Summary of key accounting policy (continued)

(i) Employee benefits

i) Short term employee benefit

Remuneration, salary and bonus are acknowledged as expenditure in the Energy Commission staff year of service. Consolidated paid short term leave such as paid annual leave is acknowledged when the services of the staff will enhance the staff eligibility on future paid leave and non consolidated short term leave such as sick leaves will only be acknowledged as and when it happens.

ii) Fixed contribution plan

In accordance to the law, employers in Malaysia are obligated to make fixed contribution to the Employee Provident Fund (EPF). The contribution is acknowledged as expenditure in the income statement. The obligation for the fixed contribution is acknowledged as expenditure in income statement.

(j) Income and Expenditure Acknowledgment

All expenditure is calculated based on accruement. Income from fees and charges acknowledged based on cash value since the obligation to make yearly payments is on the license holders. Interest income is also acknowledged base on cash.

3. Property, fittings and equipment

	Work under construction RM	Furniture, equipment and renovation RM	Office equipment RM	Application system and computer RM	Motor vehicle RM	Total RM
Cost	12,914,550					
On January 1, 2008	12,914,550	2,877,990	839,811	1,916,779	1,865,999	20,415,129
Addition	13,177,627	22,946	38,981	333,809	145,147	13,718,510
Liquidation	-	-	-	(17,190)	-	(17,190)
Reclassification	-	-	-	(28,180)	28,180	-
On Dec 31, 2008	26,092,177	2,900,936	878,792	2,205,218	2,039,326	34,116,449
Accumulated devaluation						
On January 1, 2008	-	2,797,883	580,464	1,810,431	1,385,051	6,573,829
Current year devaluation	-	42,555	127,187	191,923	263,633	625,298
Liquidation	-	-	-	(17,190)	-	(17,190)
Reclassification	-	-	-	(28,180)	28,180	-
On Dec 31, 2008	-	2,840,438	707,651	1,956,984	1,676,864	7,181,937
Net book value						
On Dec 31, 2008	26,092,177	60,498	171,141	248,234	362,462	26,934,512
On Dec 31, 2007	12,914,550	80,107	259,347	106,348	480,948	13,841,300
Devaluation for the year ending December 31, 2007	-	128,381	125,782	81,180	316,239	651,582

4. Receivables

	2008 RM	2007 RM
Miscellaneous debtor and deposit	190,504	188,704

5. Cash and cash equivalent

	2008 RM	2007 RM
Cash money and bank balance	11,305,897	8,738,672
Deposit in licensed bank	166,860,982	153,893,705
	178,166,879	162,632,377

6. Accumulated Funds

	2008 RM	2007 RM
On January 1	174,402,036	139,542,022
Net excess income for the current year	26,056,057	34,860,014
On December 31	200,458,093	174,402,036

7. Taxation

	2008 RM	2007 RM
Current tax expenditure		
• current year	1,477,818	1,235,270
• Deficit/(excess) for the previous year	73,705	(74,666)
	1,551,523	1,160,604
Effective adjustment tax rate		
Income excess before tax	27,607,580	36,020,618
Tax at the rate of 26% (2007 – 27%)	7,177,971	9,725,567
Non taxable income	(5,700,153)	(8,490,297)
	1,477,818	1,235,270
Allocation excess on previous year	73,705	(74,666)
Tax expenditure	1,551,523	1,160,604

7. Taxation (continued)

Energy Commission has received income tax relief under Section 127(3)b of the Income Tax Act 1967 granted by the Finance Ministry on October 19 2004. The tax relief was given for statutory income as follows:

i. income received from the Federal Government or State Government in the form of grant or subsidy;

ii. income received is related to an amount chargeable on or can be collected from any entity under the Act regulating statutory authority; and

iii. donation or contribution received.

8. Personnel cost

Included in the personnel cost is contribution to the Employee Provident Fund amounting to RM1,631,652 (2007 - RM1,304,340). The number of the staff of Energy Commission as of December 31, 2008 is 189 (2007 - 176).

9. Capital Commitments

	2008 RM	2007 RM
Property, fittings and equipment		
Approved but not contracted	900,000	786,000
Approved and contracted	94,072,750	90,533,207
	94,972,750	91,319,207

STATEMENT BY THE MEMBERS

In the opinions of the members, the financial statements set out on pages 80 to 89, have been properly drawn up in accordance with applicable approved accounting standards in Malaysia to give a true and fair view of the state of affairs of the Energy Commission as at December 31, 2008 and of its revenue and expenditure and cash flows for the year ending on that date.

On behalf of the members of the Energy Commission.

.....

DATO' IR. PIAN BIN SUKRO

Chairman

.....

DATUK AWANG HAJI SAMAT

Member

Kuala Lumpur,

Date: August 10, 2009

Statutory Declaration

I, **Zarina Mohd Noor**, the principal officer responsible for the financial management and accounting records of the Energy Commission, solemnly and sincerely declare that the financial statements set out on pages 80 to 89 are, to the best of my knowledge and belief, correct and I make this solemn declaration conscientiously the same to be true, and by virtue of the provisions of the Statutory Declaration Act, 1960.

Subscribed and solemnly declared by Zarina Mohd Noor at Kuala Lumpur on August 10, 2009

.....

ZARINA MOHD NOOR

Before me:

Commissioner of Oaths,

Kuala Lumpur, Malaysia

Energy Commission

PESURUHJAYA SUMPAH
No: W 429
Nama: MOHD NOOR BIN AHMAD
MALAYSIA

Mohd Noor Bin Ahmad
Pesuruhjaya Sumpah
(Commissioner For Oaths)
Lot 205, Tingkat 2,
Kompleks Campbell,
Jalan Dang Wangi,
50100 Kuala Lumpur.

AUDITOR'S REPORT ON FINANCIAL STATEMENT OF THE ENERGY COMMISSION

Report on Financial Statement

We have audited the financial statement of the Energy Commission, which comprises of a balance sheet as on December 31, 2008, income and expenditure statement, and cash flow statement for the year ending on the said date, summary of the basis of accounting, and other explanatory notes, set out on pages 80 to 89.

Responsibilities of the members of the Energy Commission on the Financial Report

The members of the Energy Commission are responsible on the preparation of the financial statement in accordance to the applicable accounting standards in Malaysia. This responsibility include designing, implementing and ensuring internal regulation that is relevant to the preparation and presentation of a financial statement that is fair and free from important misrepresentation, be it due to fraud or mistakes; to select and apply suitable accounting policy; and to make accounting estimation and projection that is credible and suitable to the situation.

Responsibility of the auditor

It is our responsibility to give our independent opinion on the said financial statement. We undertook our audit based on the auditing standard that is approved in Malaysia. The said standards obliged us to act in accordance to the ethics specified, plan and implement audit to arrive to the suitable assurance that the financial statement is free from vital misconduct.

Audit encompassed procedures to obtain auditing evidence related to the total and statements in the financial statement. The procedure was selected base on our assessment, accounting for the assessment of vital misconduct in the financial statement, be it due to fraud or mistakes. In making the risk assessment, we take into consideration internal control that is relevant to the preparation and presentation of a fair financial statement in planning an audit procedure that is suitable and it is not with the intention to give our opinion on the effectiveness of the internal control of the company. Audit also includes assessing the accounting policy used and accounting estimation made by the Directors, including assessing the overall presentation of the Financial Statement.

We believe that the audit evidence that we obtained are sufficient, which formed a basis to our audit opinion.

Opinion

To our opinion, the financial statement has been prepared appropriately based on the accounting practices accepted in Malaysia, to give a clear and true picture on the financial position of the Energy Commission as of Decemver 31, 2008 and the revenue from the operation and cash flow for the year ending on the said date.

Other matters

This report is only prepared for the members of the Energy Commission and not for other purposes. We do not accept responsibility from other parties on the content of this report.

KPMG
Firm No. : AF 0758
Statutory Accountant

Abdullah Abu Samah
Approval No.: 2013/06/10(J)
Statutory Accountant

Petaling Jaya,
Date: 10 August 2009

NOTES

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