Suruhanjaya Tenaga

Electricity Supply Industry In Malaysia

Performance And Statistical Information

2006

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Foreword

This report provides information related to the operation of major utilities in Malaysia, namely Tenaga Nasional Berhad (TNB) in Peninsular Malaysia, Sabah Electricity Sdn Bhd (SESB) in the state of Sabah, Syarikat SESCO Berhad (SESCO) in Sarawak and mini-utility Nur Distribution Sdn Bhd in Kulim Hi-Tech Park, Kulim in the state of Kedah. The data and information contain in this report are collected through the regulatory reporting requirement by the licensee (except for SESCO), which include:

- Report on compliance to the license terms and conditions;
- Reports from the grid system operator;
- Report from the generators;
- Complaints from the public and mass media.

Year 2006 was full of challenges. The utilities and in particular, TNB, was under tremendous pressure to manage the increasing cost of supplying electricity. The global escalation in fuel cost especially oil and coal and the prices of metal-based product coupled with the high generation reserve margin situation and the high capacity payments to the Independent Power Producers (IPPs) contributed to the deteriorating financial position of TNB. In view of these escalating costs, the Government approved an average 12% tariff hike to TNB in order to balance TNB's declining financial position. In addition, to manage the hike to a reasonable level and to relieve the overall burden on the Government and the end consumers, the Government decided that the IPPs should also contribute to reduce the imbalance in the industry, particularly in sustaining the viability of the utility and the IPPs.

The approval for a tariff hike by the Government to TNB is on condition that an improvement in the services should be achieved. In line with the decision, the Energy Commission initiated several discussions with TNB to set the standard on supply and services of TNB. However, towards the end of 2006, the supply standard and services was still under negotiation before it could be materialized.

In Sabah, the viability of SESB was still the main focus in 2006. As part of the turn around plan, the construction of the East West interconnection grid was implemented and scheduled to be completed by September 2006. It is envisaged that with the commissioning of the interconnection part of the solution in providing adequate supply via power flow from the West to East Coast could be enhanced. However, the completion of the project was delay due to several factors such as availability of overhead tower components, wayleave issue and others. This was compounded with the delay in commissioning of several generation projects in the West Coast and had adversely affected the capability of SESB in providing reliable supply. As such, the performance of SESB particularly in term of reliability of supply had declined in the year 2006.

At Kulim Hi-Tech Park, Nur Generation Sdn Bhd and Nur Distribution Sdn Bhd are both under receivership since 2004. In line with the Commission's function to ensure financial viability of the licensee, the receiver and manager appointed for the two companies was required to implement a turnaround plan with a view of ensuring continuity of supply and services to consumers in Kulim Hi-Tech Park.

For the next five years the growth rate for electricity demand is forecasted to be around 4.3%, with the service sector as the main driver. In line with the forecasted growth, the demand for electricity is expected to increase from 91,539 GWh in year 2007 to 108,732 GWh in year 2011.

Electricity Demand Forecast

	2007	2008	2009	2010	2011
Maximum Demand (MW)	13,662	14,288	14,891	15,473	16,071
% growth	4.9	4.6	4.2	3.9	3.9
Energy Demand (GWh)	91,539	95,967	100,259	104,430	108,732
% growth	5.1	4.8	4.5	4.2	4.1

The maximum demand for the grid system in Peninsular Malaysia increased by 4.0% from 12,493 MW in the year 2005 to 12,990 MW which was recorded on 23 August 2006. At the end of 2006, the installed generation capacity stood at 18,323 MW, which was a 4% increase from 17,623 MW in the year 2005. This was due to the commissioning of Unit 1 coal plant at Tanjung Bin Power Station in Johor in September 2006. System reserve margin for the year 2006 stood around 41%.

In Peninsular Malaysia, there are two coal power generation projects still under construction, namely:

i) 2 coal power generating units of capacity 700 MW each in Tanjung Bin Johor, by Tanjung Bin Power Sdn. Bhd. The first unit was commissioned in September 2006. The second and the third unit are scheduled to be commissioned in March 2007 and September 2007 respectively;

ii) 2 coal power generating units of capacity 700 MW each in Mukim Jimah, Negeri Sembilan by Jimah Energy Ventures Sdn Bhd, where the first unit is scheduled to be commissioned in early 2009. The project has reached 41% progress as at the end of 2006.

From the consumers' perspective, the reliability of electricity supply is still the main concern. Performance of utilities, in particular SESB, needs to be improved. Analysis of the causes of interruptions indicates that more emphasize should be accorded to planning of maintenance programmes and asset management by utilities. In addition, power quality incidents such as voltage dip, which is a compatibility issue between the consumers' equipments and the utilities supply, requires continuous monitoring as well as coordinated effort from the utilities and the industrial consumers.

As we move into the near future, issues such as sustainability of the industry, financial viability of utilities and IPPs, rising cost of supply and enhanced services and supply will dominate the operation of electricity supply industry.

Country Profile

Area	329,733 sq.km
Climate	• Tropical Type • Average temperature between 20°C to 32°C • Average rainfall of about 3540 mm per annum
Population	26.6[P] million with a multi racial community comprising Malays, Chinese, Indians, Kadazans, Bajaus, Muruts, Kelabits, Dayaks, Ibans and others
Labour force	11.5 million[P]
Real GDP	RM277.7 billion[P] (+5.9%[P])
Per Capita Income	RM19,764[P]
Real GNP	RM261.9 billion[P] (+6.4%[P])
Nominal GNP	RM 526.5 billion[P] (+11.7%[P])
Current Account Balance	91.2 billion[P] (+17.3%[P] of GNP)*
Foreign Reserves	RM 290.4 billion[P] (8.1 months of retained imports)*
Gross National Savings	38.1[P] (as % of GNP)*
Total Electricity Generation	103,994 GWh
Total Electricity Consumption	88,377 GWh
Per Capita Electricity Consumption	3,322 kWh
Average Price of Electricity:	
Peninsular Malaysia	26.09 sen per kWh
Sabah	24.85 sen per kWh
Sarawak	26.95 sen per kWh

*P: preliminary *At end of December 2006*

Map of Malaysia

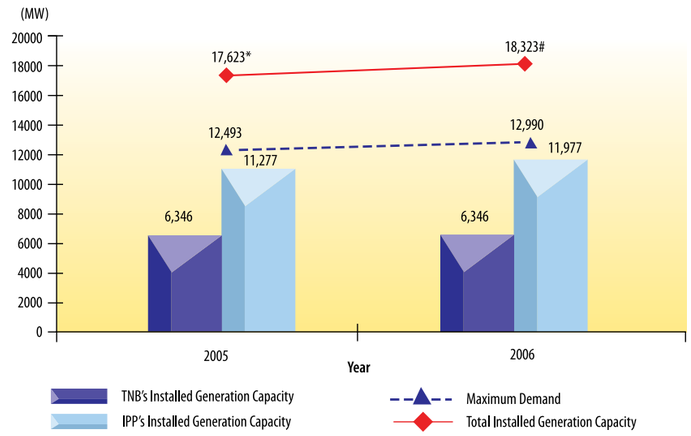
Performance Highlights

- *Electricity Supply and Demand*
- *Sales of Electricity*
- *Performance of Generation System*
- *Performance of Transmission System*
- *Performance of Distribution System*
- *Causes of Electricity Supply Interruptions*
- *Voltage Quality*
- *Quality of Service*
- *Average Selling Prices of Electricity*

ELECTRICITY SUPPLY AND DEMAND

Installed Generation Capacity And Maximum Demand Of The Grid System Of TNB, SESB, SESCO And Distribution System Of NUR

Figure 1 : Maximum Demands and Installed Generation Capacity in Peninsular Malaysia in the Year 2006



Notes :

Installed capacity of IPPs including of Janamanjung Power Station and Kapar Energy Ventures Sdn. Bhd. (KEV)

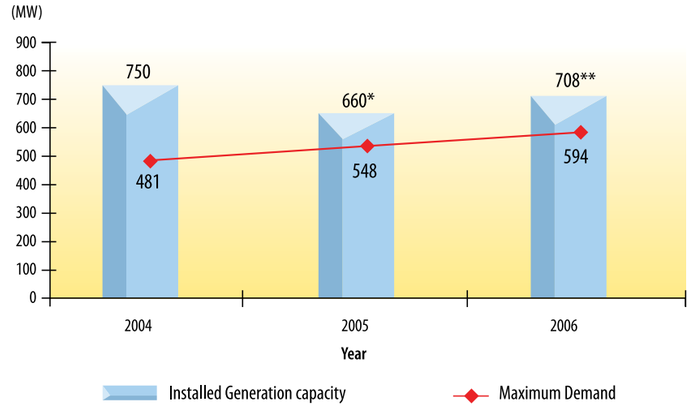
* - 1) Addition of one block of combined cycle unit of 715 MW at Tuanku Jaafar Power Station, Port Dickson in June 2005.

2) Retirement of 3 thermal generation units totaling 360 MW in Prai Power Station in July 2005.

- Commissioning of Unit 1 coal generation plant of 700 MW at Tanjung Bin Power Station, Johor in September 2006.

The maximum demand of the grid system in Peninsular Malaysia increased by 4.0% from 12,493 MW in the year 2005 to 12,990 MW recorded on 23 August 2006. The installed generation capacity also increased from 17,623 MW in the year 2005 to 18,323 MW, subsequent to the commissioning of Unit 1 coal plant of 700 MW at Tanjung Bin Power Station in Johor in September 2006.

Figure 2 : Maximum Demands and Installed Generation Capacity in Sabah for West Coast Grid and East Coast Grid in the Year 2006



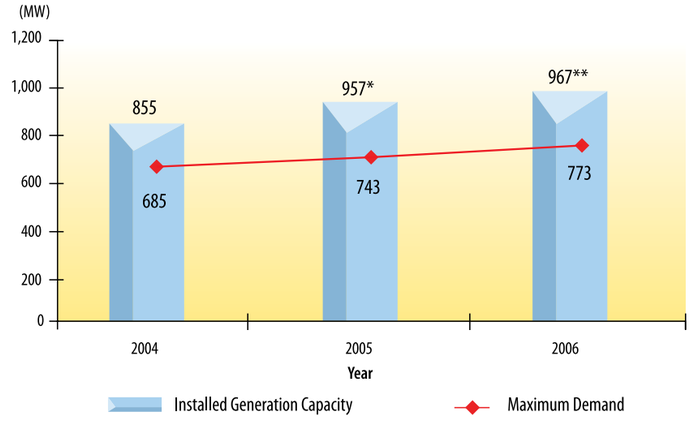
Notes :

* - Retirement of several SESB diesel generation stations (isolated and grid connected) in Sabah in early year 2005.

** - Commissioning of First Phase of open cycle of 66 MW at Sepangar Bay, Sabah by Sepangar Bay Power Corporation Sdn. Bhd. in November 2006.

The total combined maximum demand for both grid systems in Sabah increased by 8.4% from 548 MW in 2005 to 594 MW. The installed generation capacity also increased from 660 MW to 708 MW, following the commissioning of First Phase (open cycle) of 66 MW at Sepangar Bay, Sabah in November 2006.

Figure 3: Maximum Demands and Installed Generation Capacity in Sarawak in the Year 2006



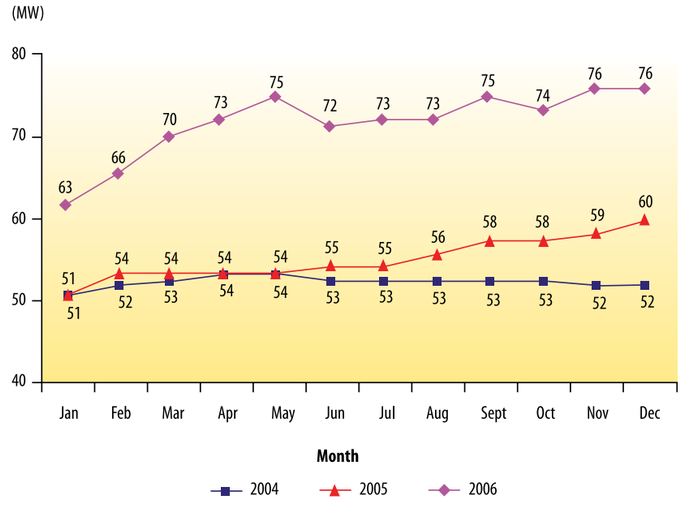
Notes :

* - Additional of 102 MW coal-fired thermal plant at Sejingkat Power Corporation (SPC) Power Station, Kuching.

** - Additional capacity of coal-fired thermal plant at PPLS Power Generation Power Station.

The maximum demand increased by 4.0% from 743 MW to 773 MW. The installed generation capacity also increased marginally to 967 MW.

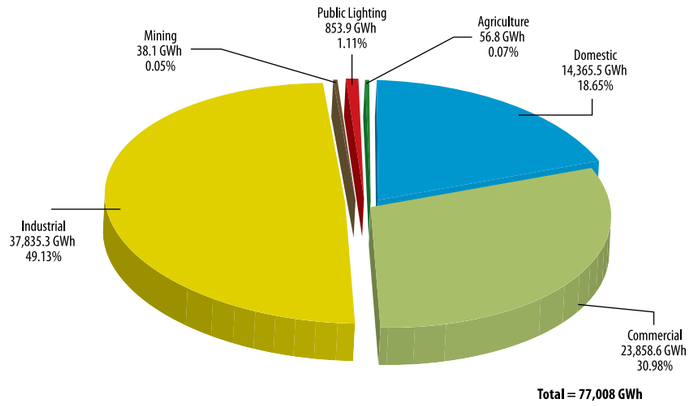
Figure 4 : Monthly Maximum Demands of NUR Distribution Sdn. Bhd.



The maximum demand in KHTP increased by 26.7% from 60 MW in 2005 to 76 MW.

Sales Of Electricity Of TNB, SESB, Syarikat SESCO Berhad And NUR

Figure 5 : Sales of Electricity (GWh) by TNB in 2006



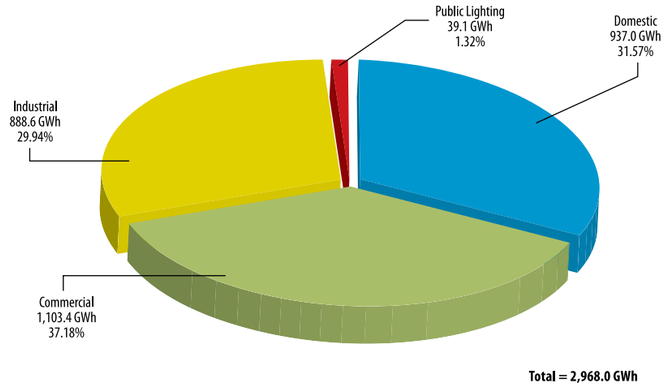
Notes :

Total energy sales of TNB from year 2002 to 2005 :

61,509 GWh (Year 2002)
64,292 GWh (Year 2003)
68,974 GWh (Year 2004)
73,102 GWh (Year 2005)

The sales of electricity of TNB increased by 5.3% to 77,008 GWh from 73,102 GWh sold in 2005. The industrial sector recorded the highest percentage compared with other sectors.

Figure 6 : Sales of Electricity (GWh) by SESB in 2006



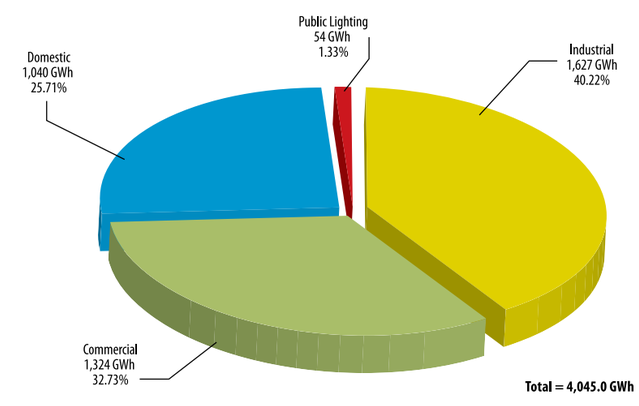
Notes :

Total energy sales of SESB from year 2002 to 2005 :

2,182 GWh (Year 2002)
2,333 GWh (Year 2003)
2,556 GWh (Year 2004)
2,770 GWh (Year 2005)

The sales of electricity of SESB increased by 7.1% to 2,968 GWh from 2,770 GWh sold in 2005. The commercial sector recorded the highest of electricity sales compared with other sectors.

Figure 7 : Sales of Electricity (GWh) by Syarikat SESCO Berhad in 2006



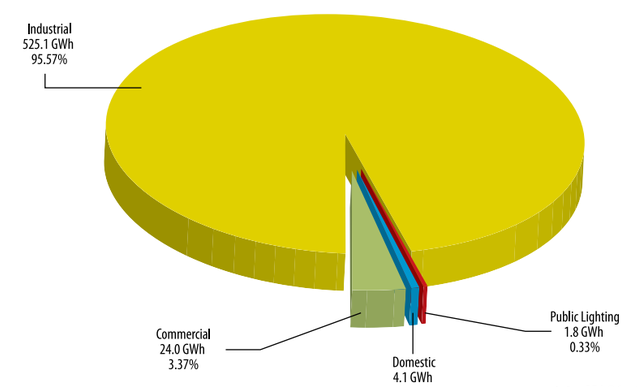
Notes :

Total energy sales of Syarikat SESCO Berhad from year 2002 to 2005 :

3,248 GWh (Year 2002)
3,471 GWh (Year 2003)
3,679 GWh (Year 2004)
3,942 GWh (Year 2005)

The sales of electricity of Syarikat SESCO Berhad increased by 2.6% from 3,942 GWh sold in 2005 to 4,045 GWh. The industrial sector recorded the highest percentage of energy sold compared to other sectors.

Figure 8 : Sales of Electricity (GWh) of NUR Distribution Sdn. Bhd. in 2006



Notes :

Total energy sales of NUR from year 2002 to 2005 :

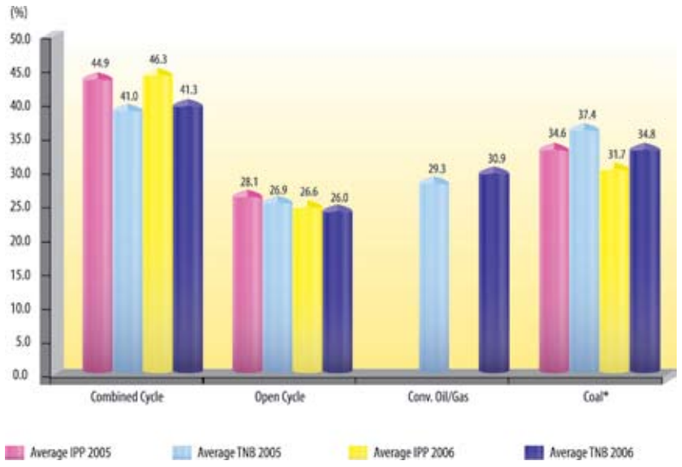
379 GWh (Year 2002)
395 GWh (Year 2003)
408 GWh (Year 2004)
427 GWh (Year 2005)

The sales of electricity in Kulim Hi-Tech Park (KHTP) as reported by NUR Distribution Sdn Bhd increased by 30.0% from 427 GWh sold in 2005 to 555 GWh. The industrial sector recorded the highest percentage compared to other sectors.

PERFORMANCE OF GENERATION SYSTEM

Performance Of Generation System - TNB

Figure 9 : Average Thermal Efficiency of IPP's and TNB's Plants for Year 2005 and 2006



Notes :

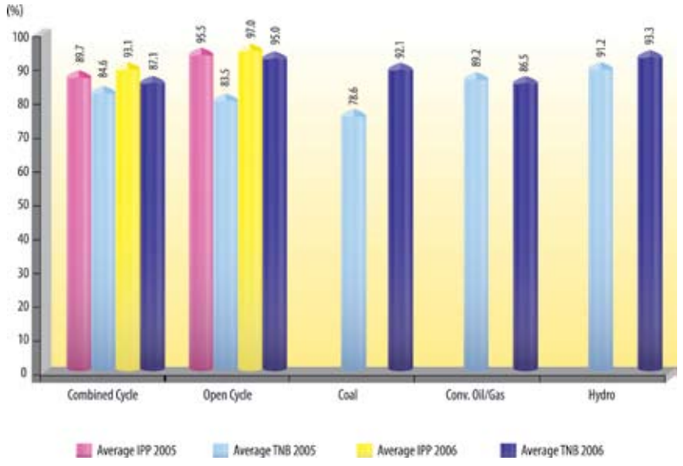
Effective from July 2004, Kapar Energy Ventures (KEV) had to ownership, operational and maintenance of Sultan Salahuddin Abdul Azizi Shah Power Station at Kapar, Klang from TNB.

* TNB Janamanjung and KEV are classified as IPPs.

In the year 2006, the average thermal efficiency for IPP's generation plants was 26.6% for open cycle and 46.3% for combined cycle plant. The average thermal efficiency for TNB gas-based plants stood around 25.4% for the oldest open cycle plant and 48.8% for the new combined cycle plant. For TNB thermal plants, the average thermal efficiency stood around 30.9% for oil-based generating plants and 34.8% for coal-based generating plants. However, the figures recorded are average thermal efficiency of the plants which are influenced by factors such as :

- thermal combustion/generation technology
- operating and site conditions
- type and quality of fuel
- degradation

Figure 10 : Equivalent Availability Factor of IPP's and TNB's Plants for Year 2005 and 2006

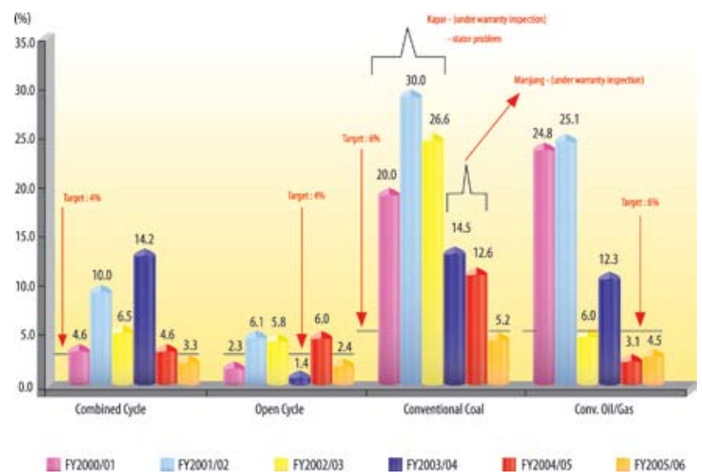


Note :

TNB Janamanjung and KEV are classified as IPPs.

The average Equivalent Availability Factor (EAF) for the IPP's generation plants was 93.1% for combined cycle plants and 97.0% for open cycle. Meanwhile, for the TNB thermal plants, the average EAF was 92.1% for coal generation plants and 86.5% for oil-based generation plants.

Figure 11 : Equivalent Unplanned Outage Factor of TNB's Plants

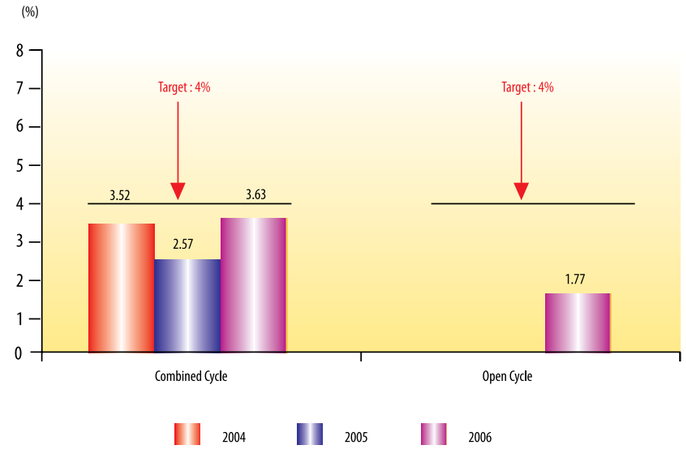


Note :

TNB Janamanjung and KEV are classified as IPPs.

The average Unplanned Outage Rate (UOR) for TNB's plants in the year 2006 were 2.4% (open cycle plants), 3.3% (combined cycle plants), 5.2% (coal plants) and 4.5% (oil plants).

Figure 12 : Unplanned Outage Rate (UOR) of IPP's Plants for Year 2004 to 2006



The average UOR for IPP's generation plants in 2006 was 1.77% for open cycle plants and 3.63% for combined cycle plants. Most IPP's and TNB's generating plants performed better than the targeted UOR of 4% for open cycle and combined cycle plants, and 6% for coal and oil based plants.

Performance Of Generation System - SESB

Figure 13 : Unplanned Outage Rate (UOR) for Sabah in 2006

On average, most IPP's and SESB's plants in Sabah recorded high outage rates and thus, have affected the reliability of the whole supply system. In 2006, the average Unplanned Outage Rate of IPP's was 6.1% whereas SESB's was 11.6%.

Most diesel plants have lower reliability due to several factors such as ageing, maintenance regime, operating conditions and etc.

PERFORMANCE OF TRANSMISSION SYSTEM

Transmission System Of TNB

Table 1 : Transmission System Trippings with a Load Loss of 50 MW and above for Year 2004 to 2006 in Peninsular Malaysia

Indicators	2004	2005	2006
No. of Tripping without Load Shedding	9	11	6
Unsupplied Energy due to Tripping (MWh)	596.1	20,122.7*	215.4
No. of Tripping with Load Shedding	1	2	1
Unsupplied Energy during Load Shedding (MWh)	178.0	19,347.6*	179.1

Note :

* Including tripping incident on 13th January 2005

The total number of trippings in the transmission network in Peninsular Malaysia with a load loss of above 50 MW in 2006 reduced slightly compared to 2005 with 6 major trippings and 1 load shedding incident. The total unsupplied energy also reduced from 20,122.7 MWh (including the tripping incident on 13th January 2005) in the year 2005 to 215.4 MWh.

Table 2 : Monthly Transmission System Trippings with a Load Loss of 50 MW and Above for Year 2006 in Peninsular Malaysia

Indicators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
No. of Tripping without Load Shedding	1	0	0	2	1	1	1	0	0	0	0	0
Unsupplied Energy due to Tripping (MWh)	46.7	0	0	40.5	69.7	31.4	27.2	0	0	0	0	0
Average Unsupplied Energy per Trip (MWh)	46.7	0	0	20.2	69.7	31.4	27.2	0	0	0	0	0
Average Duration per Trip (Hour)	0:31	0	0	0:19	1:24	0:30	0:10	0	0	0	0	0
No. of Tripping with Load Shedding	0	0	0	0	0	1	0	0	0	0	0	0
Unsupplied Energy during Load Shedding (MWh)	0	0	0	0	0	179.1	0	0	0	0	0	0

Figure 14 : Number of Transmission System Tripping with a Load Loss of 50 MW and Above for Year 2002 to 2006 in Peninsular Malaysia

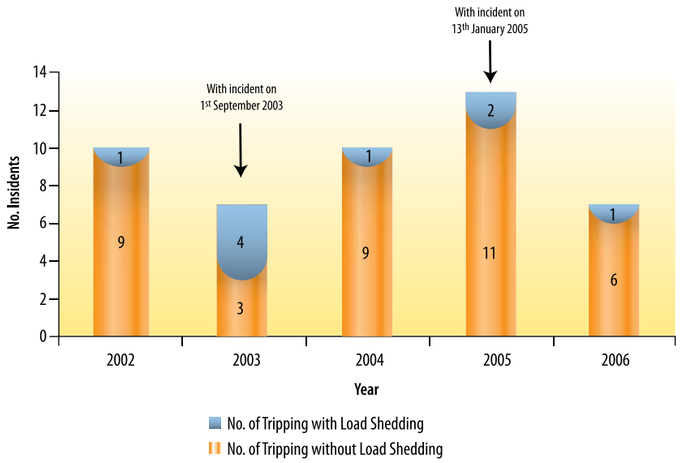
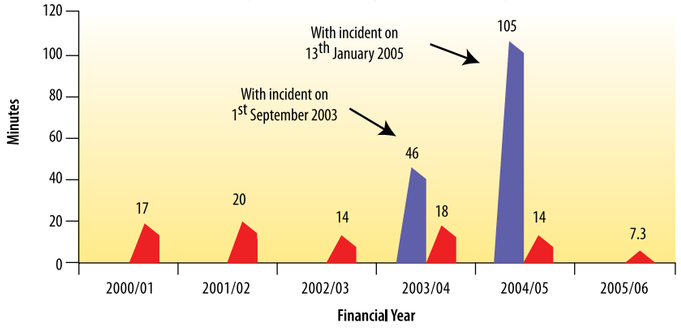
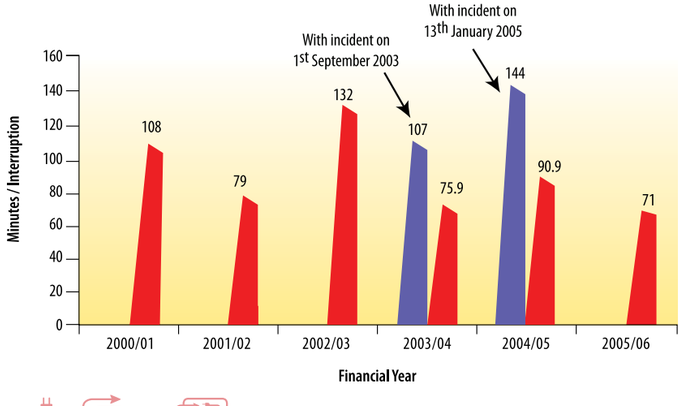


Figure 15 : System Minutes TNB



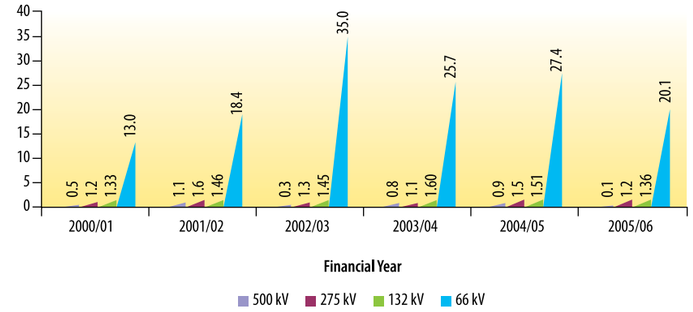
System minutes of TNB's transmission system in financial year 2005/06 was 7.3 minutes compared with 14 minutes in the previous year, indicating an improved performance below the targeted system minutes of 10 minutes.

Figure 16 : System Average Restoration Index (SARI)



SARI for financial year 2005/06 reduced by 21.9% to 71 minutes from 144 minutes in the year 2005 (including tripping incident on 13th January 2005 which accounted for 53.1 minutes).

Figure 17 : No. of Line and Cable Trippings per 100 cct-km

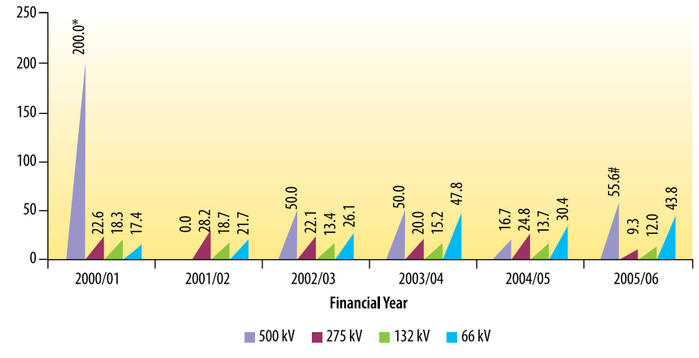


Profile for Financial Year 2005/06

Line Voltage	Total Lenght (cct-km)	Total Tripping	Tripping/100 cct-km
66 kV	171.3	34	20.1
132 kV	11,116	151	1.36
275 kV	6,786	83	1.22
500 kV	890	1	0.11
Total	18,963	269	1.42

The 132 kV line experienced the highest trippings at 151 incidents reported in financial year 2005/06.

Figure 18 : No. of Transformer Trip-Outs per 100 Units Installed



Notes :

* - In year 2001, only 2 transformers installed with no. of incidents was 2.

\# - Only 9 transformers

Profile for Financial Year 2005/06

Line Voltage	Total Unit Installed	Total Tripping	Tripping/100 Units Installed
66 kV	16	7	43.8
132 kV	864	104	12.0
275 kV	130	12	9.3
500 kV	9	5	55.6
Total	1,019	128	12.6

The 132 kV transformers experienced the most trippings at 104 in financial year 2005/06, compared to transformers of other voltage level.

Transmission System Of SESB

Table 3 : Transmission System Trippings of West Coast Grid in Sabah with a Load Loss of 50 MW and Above in Financial Year 2005/06

Indicators	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
No. of Tripping without Load Shedding	0	1	0	1	0	1	0	0	4	0	0	2
Unsupplied Energy due to Tripping (MWh)		30.31		9.21		45.08			214.89			118.99
Average Unsupplied Energy per Trip (MWh)		30.31		9.21		45.08			53.72			59.49
Average Duration per Trip (Hour)		0.13		0:23		0:25			0:54			1:56
No. of Tripping with Load Shedding	0	0	0	0	0	0	0	0	0	0	0	0
Unsupplied Energy during Load Shedding (MWh)												

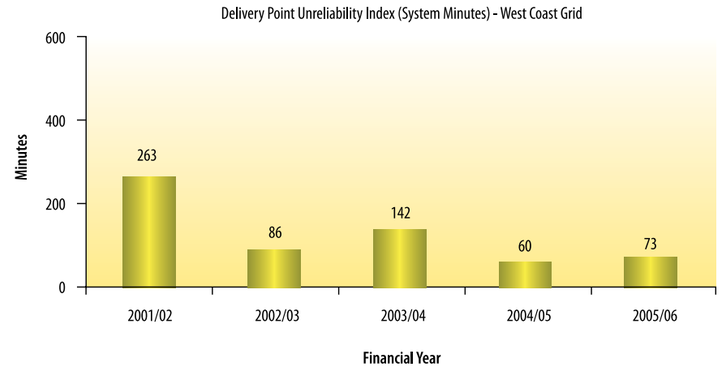
The number of transmission system trippings of West Coast Grid in Sabah with a load loss of above 50 MW in financial year 2005/06 increased to 9 incidents from 5 incidents in financial year 2004/05.

Table 4 : Transmission System Trippings of East Coast Grid in Sabah with a Load Loss of 50 MW and Above in Financial Year 2005/06

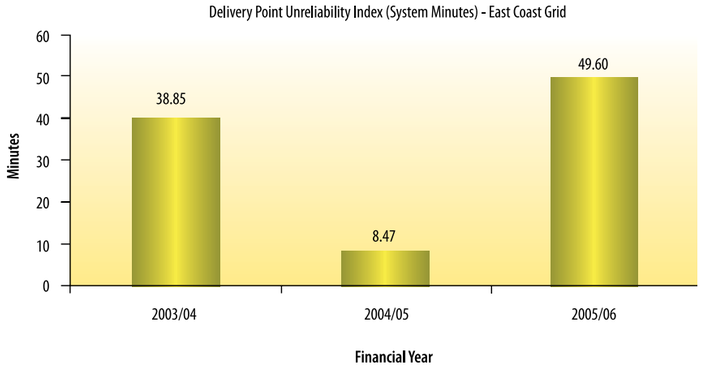
Indicators	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
No. of Tripping without Load Shedding	0	0	0	0	0	4	0	1	0	0	3	0
Unsupplied Energy due to Tripping (MWh)						538.2		198.9			1019.7	
Average Unsupplied Energy per Trip (MWh)						134.55		198.9			339.9	
Average Duration per Trip (Hour)						2:39		3:59			7:16	
No. of Tripping with Load Shedding	0	0	0	0	0	0	0	0	0	0	0	0
Unsupplied Energy during Load Shedding (MWh)												

The number of transmission system trippings of East Coast Grid with a load loss of above 50 MW reported in financial year 2005/06 was 8 incidents.

Figure 19 : System Minutes SESB



System minutes of West Coast Grid in financial year 2005/06 increased by 21.7% to 73 minutes from 60 minutes in financial year 2004/05.

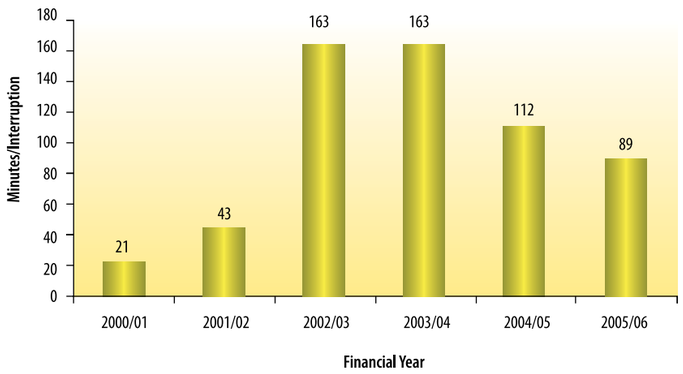


Note :
Delivery Point Unreliability Index-DePUI

$$= \frac{\text{Total unsupplied energy (MW-min)}}{\text{System peak load (MW)}}$$

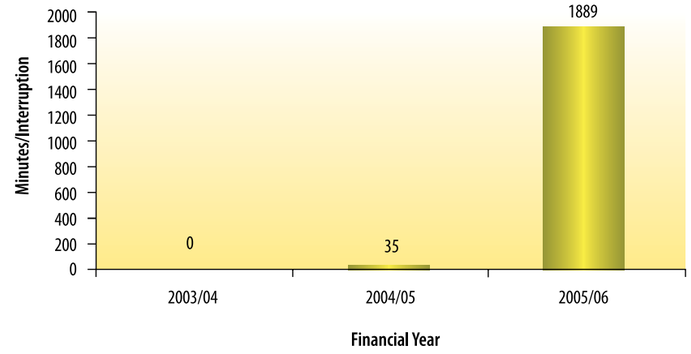
System minutes of East Coast Grid in financial year 2005/06 increased significantly from 8.47 minutes in financial year 2004/05 to 49.60 minutes.

Figure 20 : System Average Restoration Index (SARI) – West Coast Grid



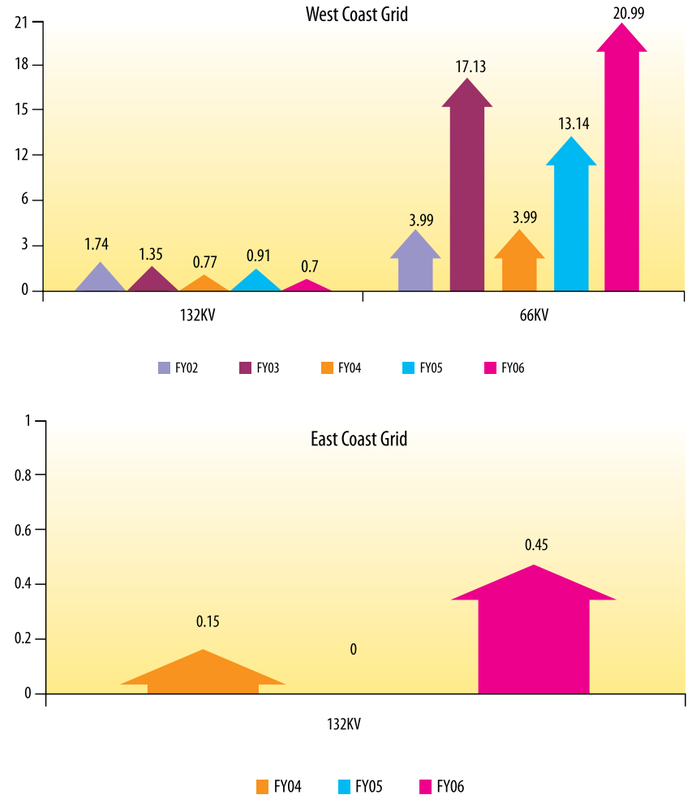
SARI of West Coast Grid in financial year 2005/06 reduced by 20.5% from 112 minutes in financial year 2004/05 to 89 minutes.

Figure 21 : System Average Restoration Index (SARI) – East Coast Grid



However, SARI of East Coast Grid increased significantly to 1,889 minutes from 35 minutes in financial year 2004/05.

Figure 22 : No. of Combined Line and Cable Tripping per 100 cct-km (With load loss)



The number of line and cable trips for every 100 cct-km with a load loss for West Coast Grid in Sabah had increased, particularly on 66 kV system compared to 132 kV system, which showed a decline from the previous financial year. Meanwhile, the number of trippings of East Coast Grid with a load loss of 132 kV also increased slightly from the previous financial year.

Transmission System Of Syarikat SESCO Berhad

Table 5 : Monthly Transmission System of Syarikat SESCO Berhad in Sarawak for Year 2006

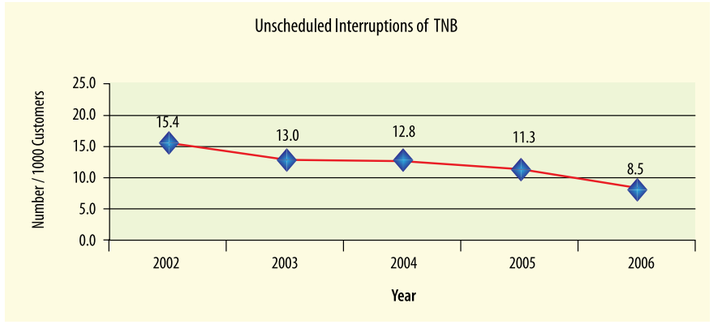
Indicators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
No. of Tripping without Load Shedding	0	0	1	0	1	0	0	2	1	0	4	0
Unsupplied Energy due to Tripping (MWh)	0	0	74	0	0	0	0	106	23	0	87	0
Average Unsupplied Energy per Trip (MWh)	0	0	74	0	0	0	0	53	23	0	22	0
Average Duration per Trip (Hour)	0	0	66	0	25	0	0	50	29	0	35	0
No. of Tripping with Load Shedding	0	0	0	0	1	0	0	2	1	0	2	0
Unsupplied Energy during Load Shedding (MWh)	0	0	0	0	0	0	0	106	23	0	8	0

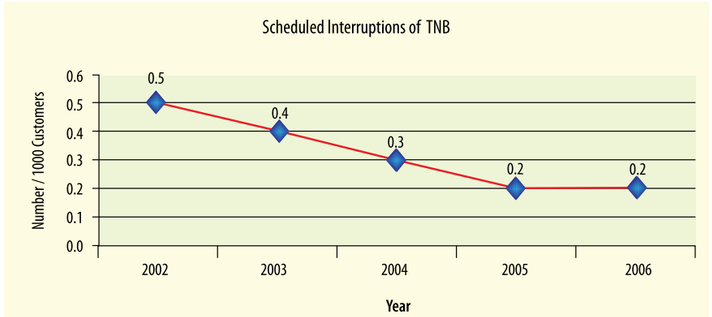
The number of trippings of Syarikat SESCO Berhad transmission system in Sarawak increased from 3 incidents in 2005 to 15 incidents (with 9 trippings and 6 load shedding incidents).

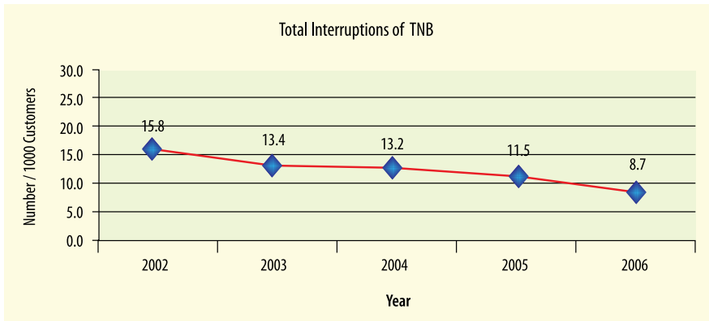
PERFORMANCE OF DISTRIBUTION SYSTEM

Statistics Of Supply Interruptions Of TNB

Figure 23 : Number of Electricity Interruptions per 1000 Customers of TNB for Year 2002 to 2006





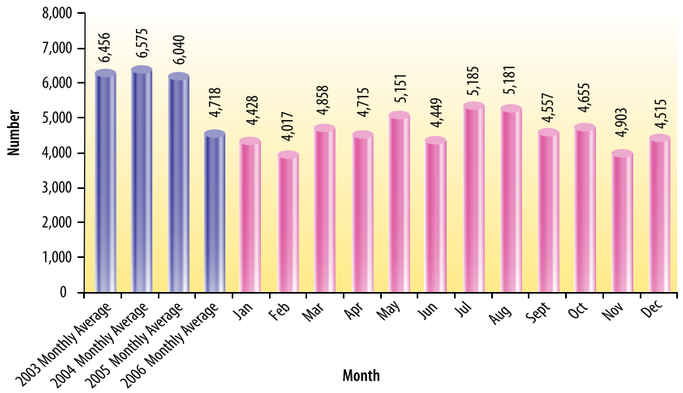


Notes :

Number of Customers :
5.5 Million (Year 2002)
5.8 Million (Year 2003)
6.0 Million (Year 2004)
6.23 Million (Year 2005)
6.53 Million (Year 2006)

The number of electricity supply interruptions per 1000 customers of TNB recorded 24.3% reductions, i.e. from 11.5 interruptions in 2005 to 8.7 interruptions in 2006. From the total interruptions in 2006, unscheduled interruptions recorded 97.7% whereas scheduled interruptions was at 2.3%.

Figure 24 : Monthly Supply Interruptions of TNB in 2006



The monthly average number of supply interruptions in Peninsular Malaysia reduced from 6,040 in 2005 to 4,718 in 2006. The highest number of incidents occurred in July 2006.

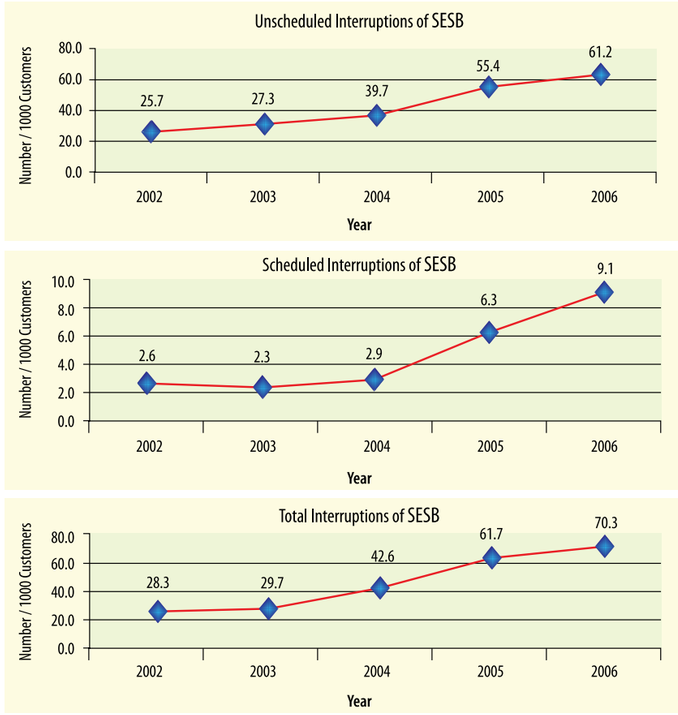
Table 6 : Total Number of Supply Interruptions and Number of Interruptions per 1000 Customers in Various States in Peninsular Malaysia for Year 2004 to 2006

State	Total No. of Interruption			No. of Interruption per 1000 Customers		
	2004	2005	2006	2004	2005	2006
Perlis	685	283	329	11.04	4.50	3.85
Kedah	10,512	9,382	3,181	21.25	18.45	4.90
P.Pinang	2,506	1,893	1,317	5.33	3.49	1.69
Perak	8,965	8,688	5,695	13.20	12.64	6.15
Selangor	**12,952**	10,188	**9,735**	10.82	8.02	4.87
WP Kuala Lumpur	11,610	7,725	6,766	13.84	8.84	5.62
WP Putrajaya	17	18	32	1.40	1.29	0.93
N.Sembilan	4,791	5,949	4,252	15.03	14.65	9.48
Melaka	3,253	2,268	1,983	14.54	9.74	6.17
Johor	10,353	11,205	9,385	11.57	12.18	8.05
Pahang	2,271	1,970	2,256	6.78	5.57	3.91
Terengganu	2,840	1,527	3,586	11.70	6.17	11.09
Kelantan	8,146	**11,385**	8,097	**24.62**	**33.47**	**19.44**
Total TNB	**78,901**	**72,481**	**56,614**	**13.15**	**11.50**	**6.57**

Among the states in Peninsular Malaysia, Selangor recorded the highest number of supply interruptions with 9,735 interruptions, and Kelantan had the highest number of supply interruptions per 1000 customers with 19.4 interruptions.

Statistics Of Supply Interruptions Of SESB

Figure 25 : Number of Electricity Supply Interruptions per 1000 Customers of SESB in Sabah for Year 2002 to 2006

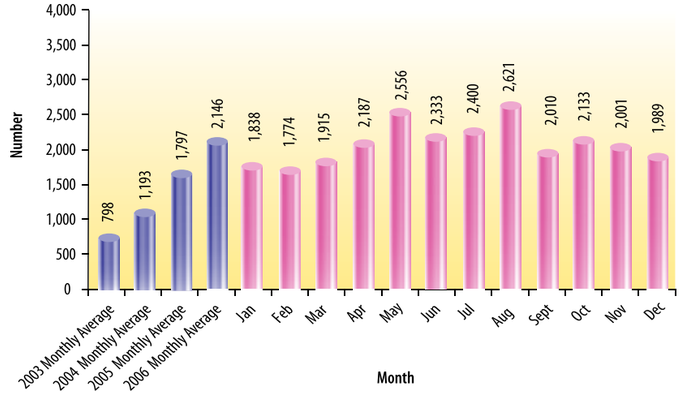


Notes :

Number of Customers :
313,381 (Year 2002)
322,830 (Year 2003)
335,800 (Year 2004)
349,757 (Year 2005)
366,380 (Year 2006)

The number of electricity supply interruptions per 1000 customers of SESB's in Sabah increased slightly from 61.7 interruptions in 2005 to 70.3 interruptions in 2006. Unscheduled and scheduled interruptions recorded were at 87.1% and 12.9% respectively.

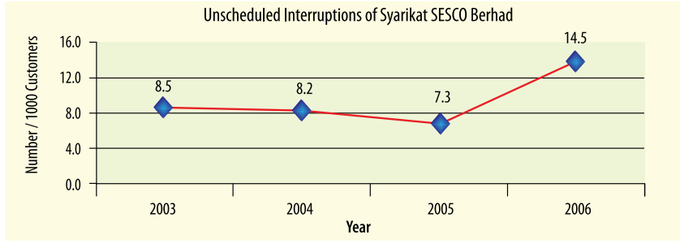
Figure 26 : Monthly Supply Interruptions of SESB in Sabah in 2006

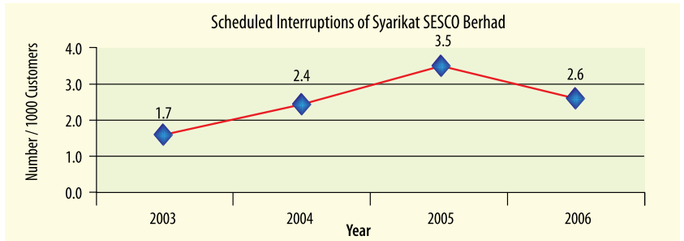


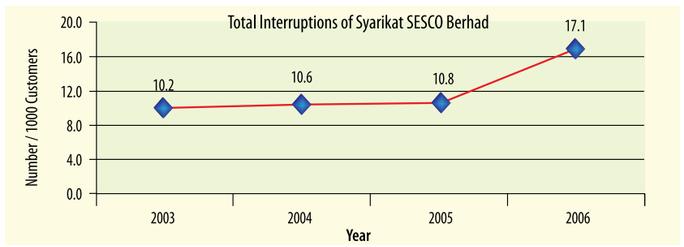
The monthly average number of supply interruptions in Sabah increased from 1,797 in 2005 to 2,146 in 2006. The highest number of supply interruptions was recorded in August 2006.

Statistics Of Supply Interruptions Of Syarikat SESCO Berhad

Figure 27 : Number of Electricity Supply Interruptions per 1000 Customers of Syarikat SESCO Berhad for Year 2003 to 2006





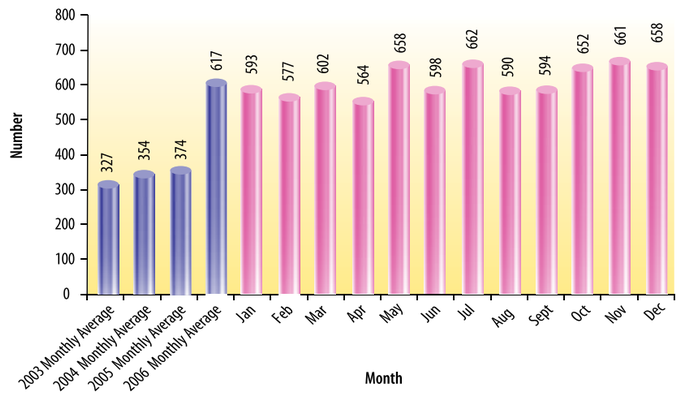


Notes :

Number of Customers:
385,003 (Year 2003)
400,348 (Year 2004)
414,767 (Year 2005)
433,401 (Year 2006)

The number of electricity supply interruptions per 1000 customers in Sarawak for the year 2006 was 17.1 interruptions, increased by 58.3% as compared to 10.8 interruptions in 2005. From the total interruptions in 2006, unscheduled and scheduled interruptions recorded were at 84.8% and 15.2% respectively.

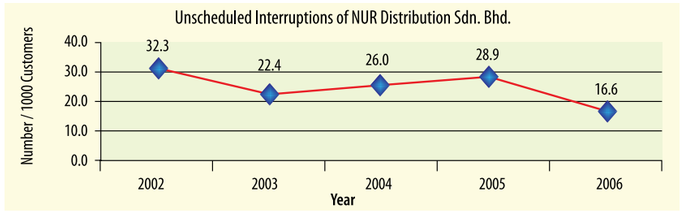
Figure 28 : Monthly Supply Interruptions of Syarikat SESCO Berhad in 2006

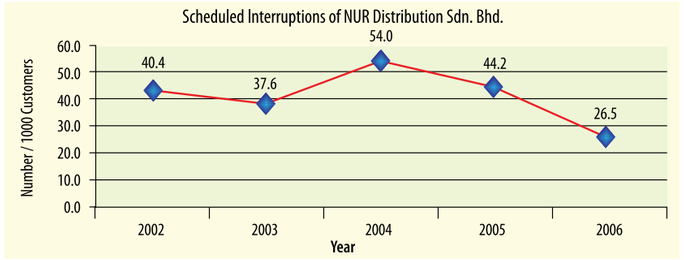


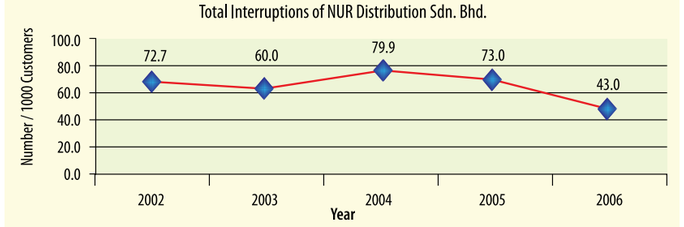
The monthly average number of supply interruptions increased significantly from 374 in 2005 to 617 in 2006. The highest number of supply interruptions was recorded in July 2006.

Statistics Of Supply Interruptions Of NUR

Figure 29 : Number of Electricity Supply Interruptions per 1000 Customers in Kulim Hi-Tech Park Reported by NUR Distribution Sdn. Bhd. For Year 2002 to 2006





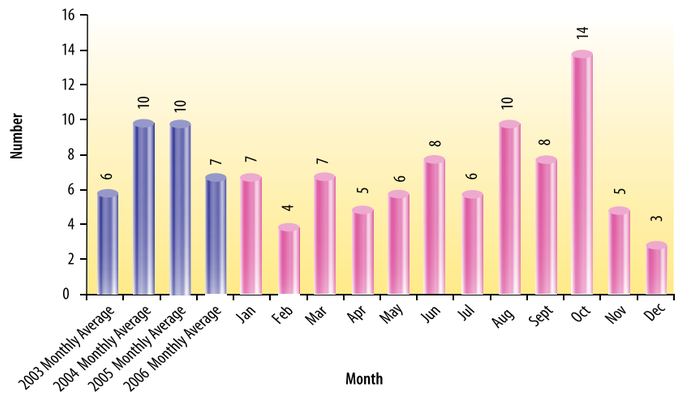


Notes :

Number of Customers :
867 (Year 2002)
1,250 (Year 2003)
1,501 (Year 2004)
1,698 (Year 2005)
1,928 (Year 2006)

The number of electricity supply interruptions per 1000 customers in Kulim Hi-Tech Park (KHTP) reported by NUR Distribution Sdn Bhd reduced from 73.0 interruptions in 2005 to 43.0 interruptions in 2006, i.e. 41.1% reductions. From the total interruptions in 2006, unscheduled interruptions recorded 62% whereas scheduled interruptions was at 38%.

Figure 30 : Monthly Supply Interruptions of NUR Distribution Sdn

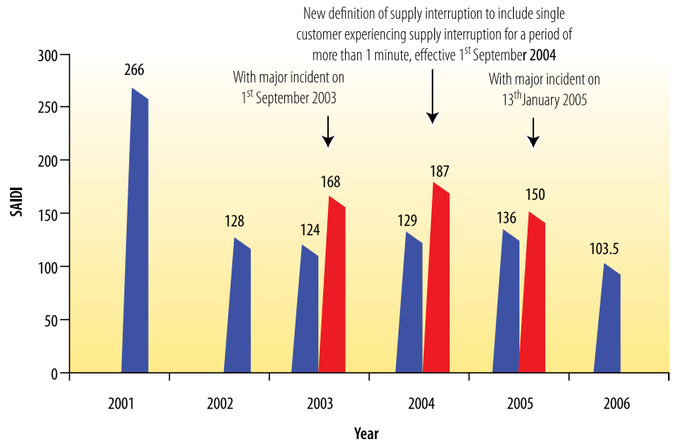


The monthly average number of supply interruptions in KHTP also reduced from 10 in 2005 to 7 in 2006. The highest number of supply interruptions was recorded in October 2006.

DISTRIBUTION SYSTEM OF TNB

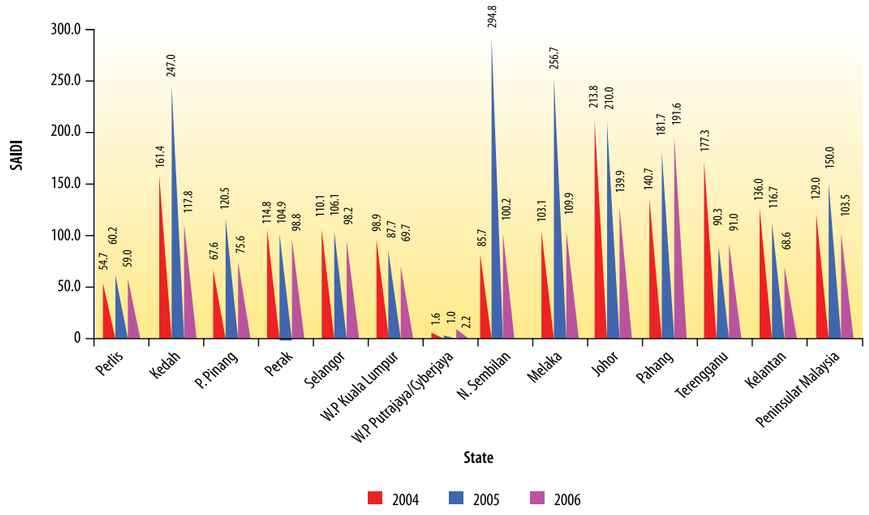
System Average Interruption Duration Index (SAIDI)

Figure 31 : SAIDI (Minutes/Customer/Year) in Peninsular Malaysia from the Year 2001 to 2006



The overall SAIDI for TNB in 2006 dropped by 30.6%, i.e. from 150.0 minutes in 2005 to 103.5 in 2006. This reflects significant improvement in the performance of the supply system of TNB in the year 2006 compared to previous year.

Figure 32 : SAIDI (Minutes/Customer/Year) for the Various States in Peninsular for Year 2004, 2005 and 2006



Pahang recorded the highest SAIDI in 2006 as compared to other states in Peninsular Malaysia with 191.6 minutes/customer/year.

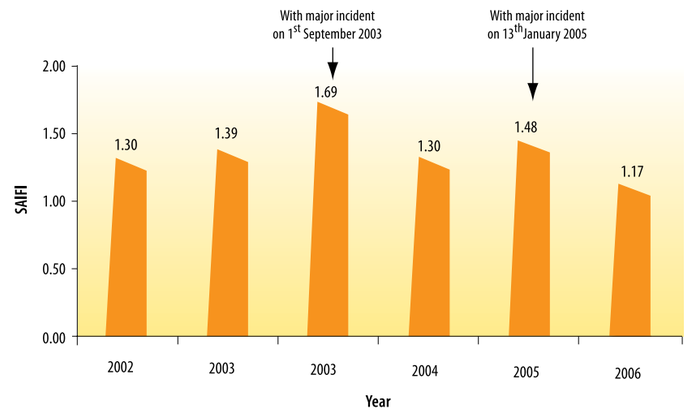
Table 7 : SAIDI of TNB and Several Utilities in Other Countries

Utility / Country	SAIDI (Minutes/Customer/Year)
TNB Putrajaya (2005/06)	1
TNB Urban (Kuala Lumpur) – (2005/06)	74
TNB Overall (2005/06)	105
Taiwan Power (2004)	30.1
United Kingdom (2004/05) (PfGem report – Distributor only)	94.3
Aurora, New Zealand (2006) (Dunedin Area Distributor)	83
Energy Australia (2003/04) (Sydney Area Distributor)	107
Western Power, Australia (2005/06)	261
Thailand (Urban)	114
New Zealand, overall (EPEI)	140
Energex, Queensland, Australia (2005/06)	265

In general, the SAIDI of TNB system is comparable or even better than some international utilities. Nevertheless, a more detail analysis should be made for a better comparison or benchmarking, as system and conditions varies from one utility to the others.

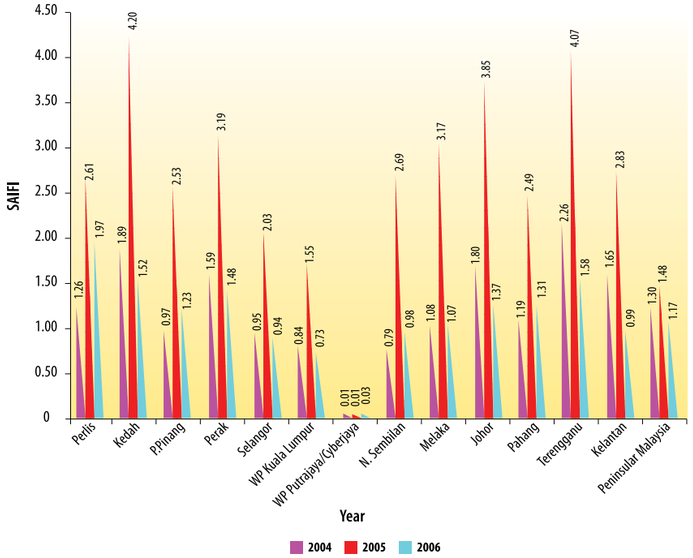
System Average Interruption Frequency Index (SAIFI)

Figure 33 : SAIFI (No./Customer/Year) in Peninsular Malaysia from the Year 2002 to 2006



The overall SAIFI in Peninsular Malaysia in the year 2006 dropped by 20.9%, i.e. from 1.48 in 2005 to 1.17 in 2006, indicating a significant improvement over the past five years.

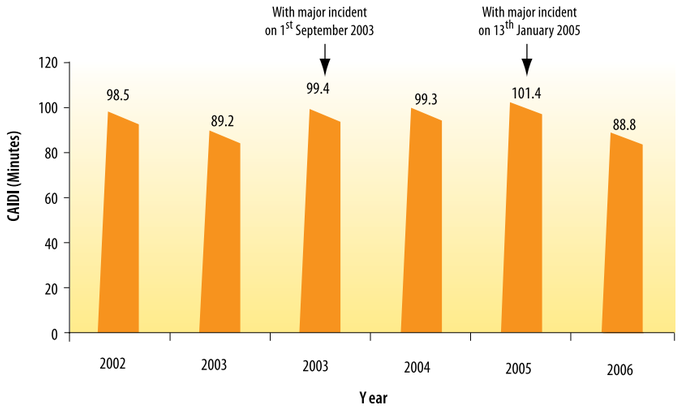
Figure 34 : SAIFI (No./Customer/Year) for the Various States in Peninsular Malaysia for year 2004 to 2006



Perlis recorded the highest SAIFI in 2006 compared with other states.

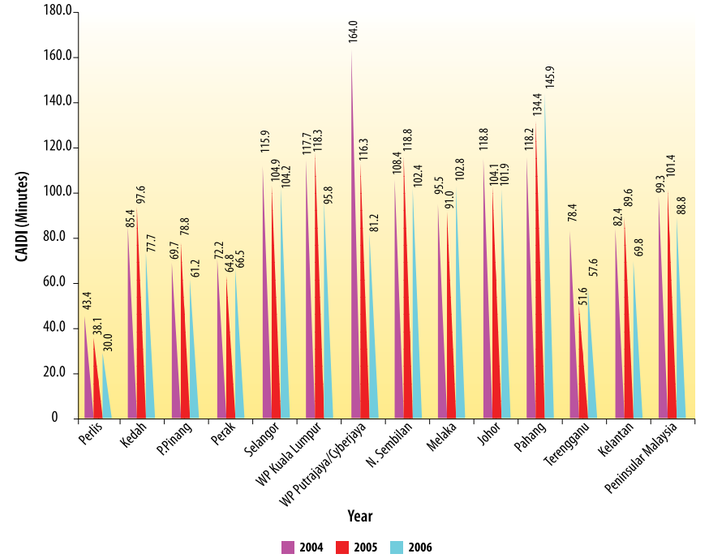
Customer Average Interruption Duration Index (CAIDI)

Figure 35 : CAIDI (Minutes/Interrupted Customer/Year) in Peninsular Malaysia from the Year 2002 to 2006



The overall CAIDI in Peninsular Malaysia in the year 2006 dropped by 12.4% from 101.4 minutes in 2005 to 88.8 minutes in 2006, indicating a reduction in duration of interruption on average a customer would experienced.

Figure 36 : CAIDI (Minutes/Interrupted Customer/Year) for the Various States in Peninsular Malaysia for Year 2004 to 2006

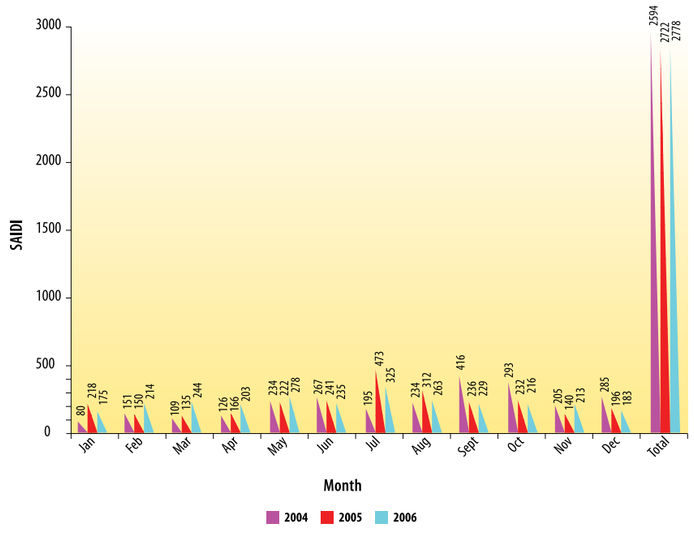


Pahang recorded the highest CAIDI in 2006 compared with other states.

DISTRIBUTION SYSTEM OF SESB

System Average Interruption Duration Index (SAIDI)

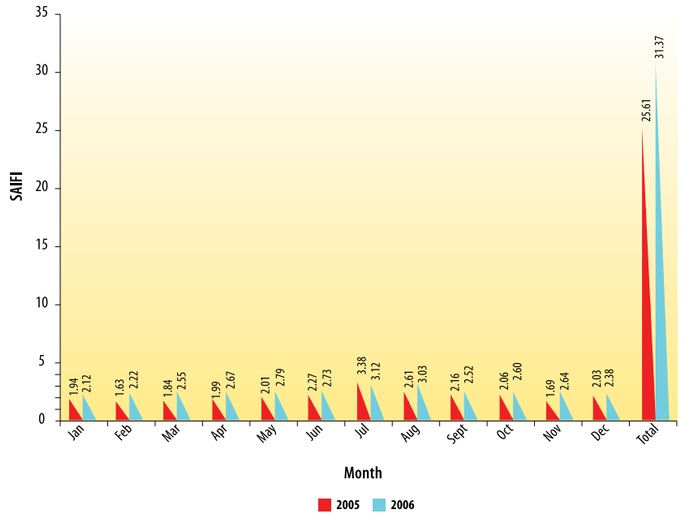
Figure 37 : Monthly SAIDI (Minutes/Customer/Year) for the State of Sabah for Year 2004 to 2006



The SAIDI in Sabah increased from 2,722 minutes in 2005 to 2,778 minutes in 2006. This reflected a slightly drop in the performance of the supply system of SESB's in the year 2006, compared with the previous year.

System Average Interruption Frequency Index (SAIFI)

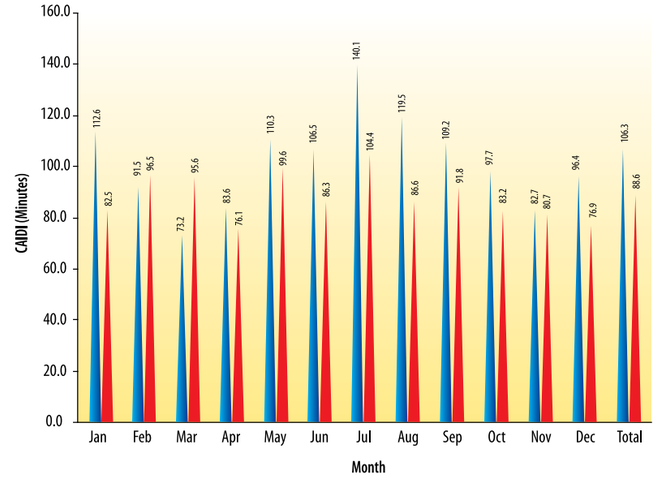
Figure 38 : Monthly SAIFI (No./Customer/Year) in Sabah for Year 2005 and 2006



For SESB, the overall SAIFI at the end of December 2006 was 31.37, i.e. an increase of 22.5% compared to 25.61 in 2005. The SAIFI in July was the highest in 2006.

Customer Average Interruption Duration Index (CAIDI)

Figure 39 : Monthly CAIDI (Minutes/Interrupted Customer/Year) in Sabah for Year 2005 and 2006

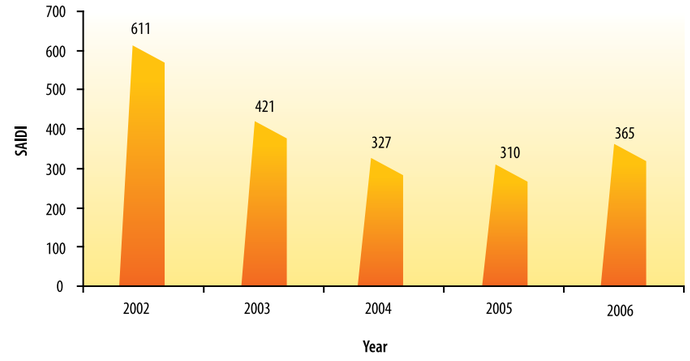


The overall CAIDI in Sabah for the year 2006 dropped by 16.7% from 106.3 minutes in 2005 to 88.6 minutes in 2006. The highest CAIDI was recorded in July 2006.

DISTRIBUTION SYSTEM OF SYARIKAT SESCO BERHAD

System Average Interruption Duration Index (SAIDI)

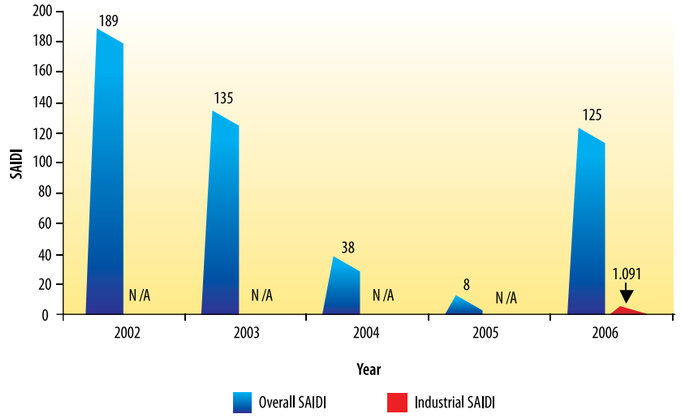
Figure 40 : SAIDI (Minutes/Customer/Year) of Syarikat SESCO Berhad in Sarawak for Year 2002 to 2006



The SAIDI for Syarikat SESCO Berhad in Sarawak increased by 17.7% from 310 minutes in 2005 to 365 minutes in 2006. This reflected a slightly drop in the performance of the supply system of Syarikat SESCO Berhad in the year 2006.

DISTRIBUTION SYSTEM OF NUR
System Average Interruption Duration Index (SAIDI)

Figure 41 : Figure 41 : Total SAIDI (Minutes/Customer/Year) and Industrial SAIDI (for High Voltage Customers Only) in Kulim Hi-Tech Park Reported by NUR Distribution Sdn Bhd for Year 2002 to 2006



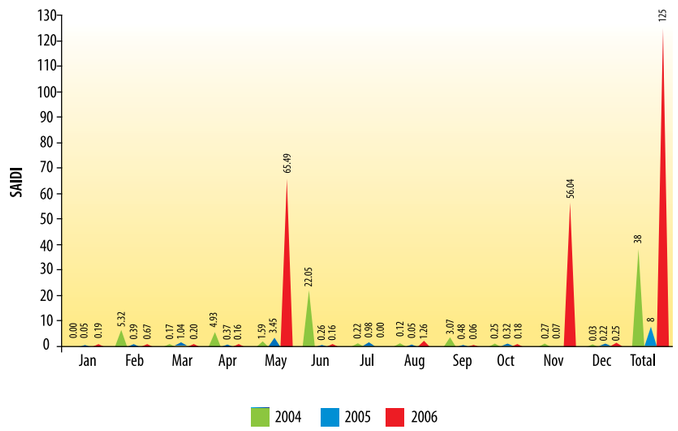
Note :

N/A – Not Available

The performance of electricity supply system in KHTP as reported by NUR Distribution Sdn Bhd declined significantly with the overall SAIDI stood at 125 minutes in 2006 compared with the previous two years.

However in 2006, NUR started to differentiate the industrial SAIDI from the overall SAIDI to reflect the nature of NUR's business of providing reliable supply to the industries in KHTP. In 2006, the industrial SAIDI (for high voltage customers only) reported was 1.091 minutes.

Figure 42 : Total SAIDI (Minutes/Customer/Year) in KHTP Reported by NUR Distribution Sdn Bhd for Year 2004 to 2006

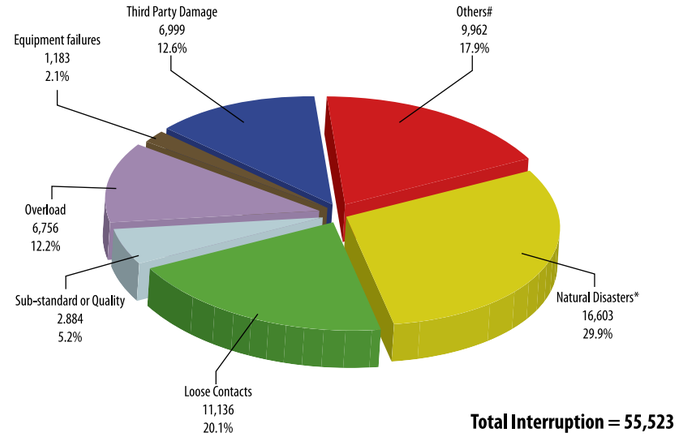


The SAIDI in the months of May and November were the highest compared with other months.

CAUSES OF ELECTRICITY SUPPLY INTERRUPTIONS
Causes Of Interruptions - TNB

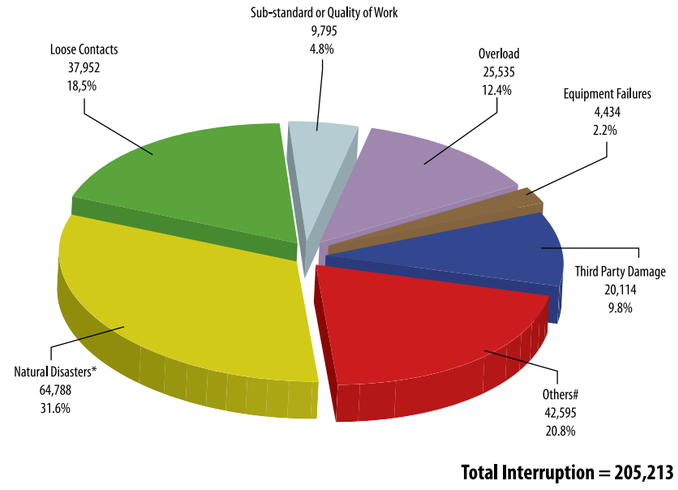
Figure 43 : Causes of Unscheduled Electricity Supply Interruptions in Peninsular Malaysia

Year 2006



Percentage of unscheduled interruptions caused by natural disasters recorded the highest, compared to other causes, i.e. a 29.9% in 2006.

Year 2003 to 2006



Notes :

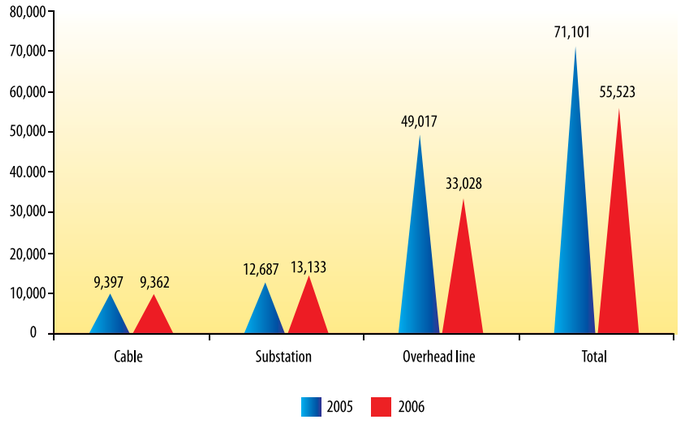
* (wind, storm, flood, land slides, etc.)

\# (ageing of insulation, design defect, relay malfunction, transient overload, encroachment/vandalism, maloperation of protection, material quality)

Over the last 4 years the major causes of electricity supply interruptions were natural disasters at 31.6%, miscellaneous causes at 20.8% and improper connection or loose contacts at 18.5%.

Figure 44 : Number of Unscheduled Electricity Supply Interruptions Due to Component of Network

Year 2003 to 2006

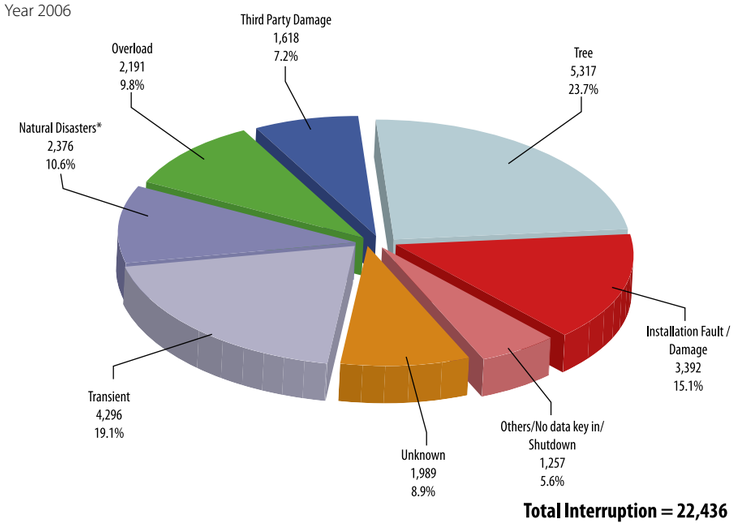


The electricity supply interruptions due to fault at substation increased slightly compared with the previous year. However interruptions due to cable faults and faults on overhead line had decreased.

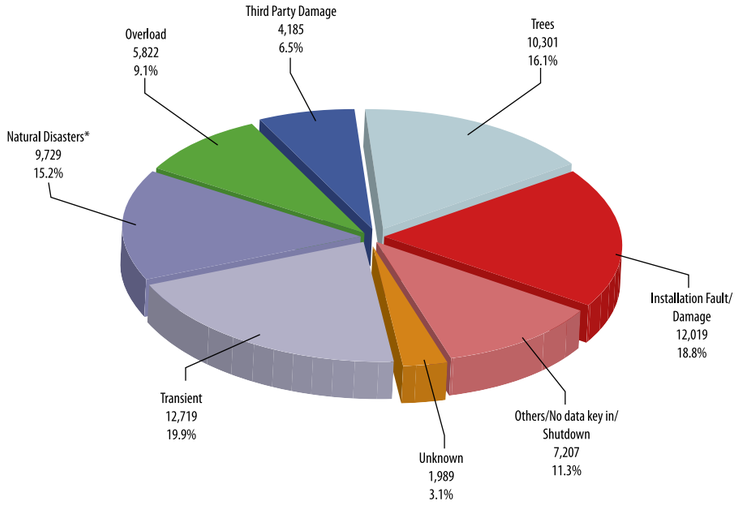
Causes Of Interruptions - SESB

Figure 45 : Total Causes of Unscheduled Electricity Supply Interruptions in SESB's System

Year 2006



From the total unscheduled interruptions in Sabah, interruptions caused by trees fouling recorded the highest percentage at 23.7% in 2006 compared to others causes.



Note :

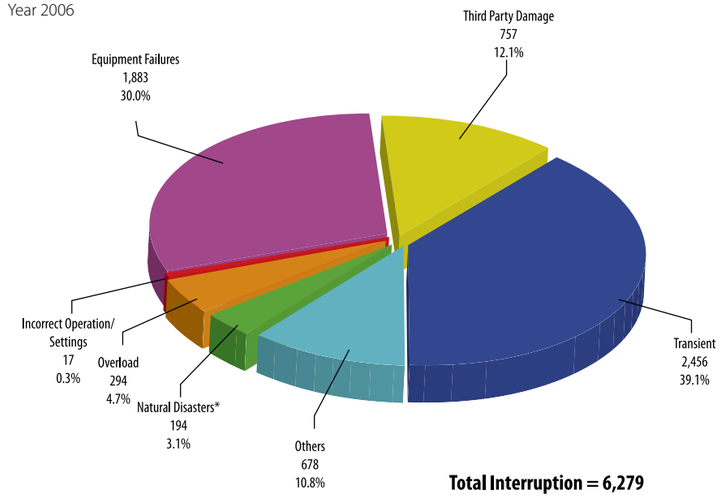
* (wind, storm,flood, land slides, etc.)

The unscheduled interruptions in the last 4 years, indicated that the interruptions due to transient and installation fault/ damage were the highest causes compared to others causes with 19.9% and 18.8% respectively.

Causes Of Interruptions - SYARIKAT SESCO BERHAD

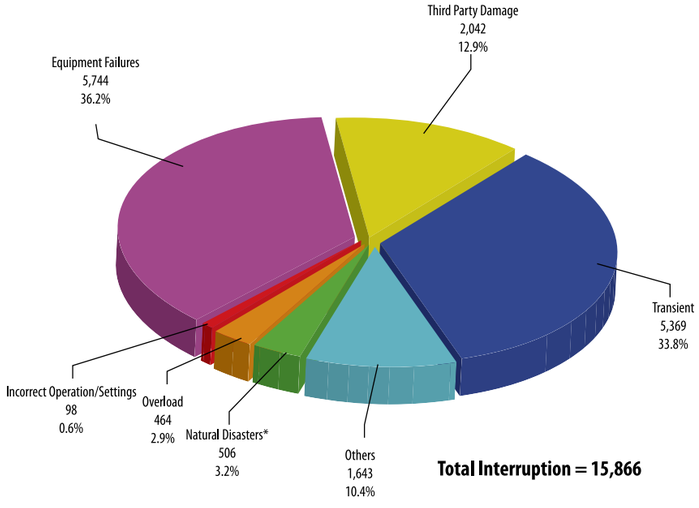
Figure 46 : Total Causes of Unscheduled Electricity Supply Interruptions in SESCO's System

Year 2006



Out of the total unscheduled interruptions in Sarawak, interruptions due to transient faults remained the highest cause of interruptions reported in 2006 at 39.1% compared to other causes.

Year 2003 to 2006



Note :

* (wind, storm,flood, land slides, etc.)

In the last 4 years, the interruptions due to equipment failures recorded the highest causes at 36.2% of the total unscheduled interruptions, followed by interruptions due to transient faults at 33.8%.

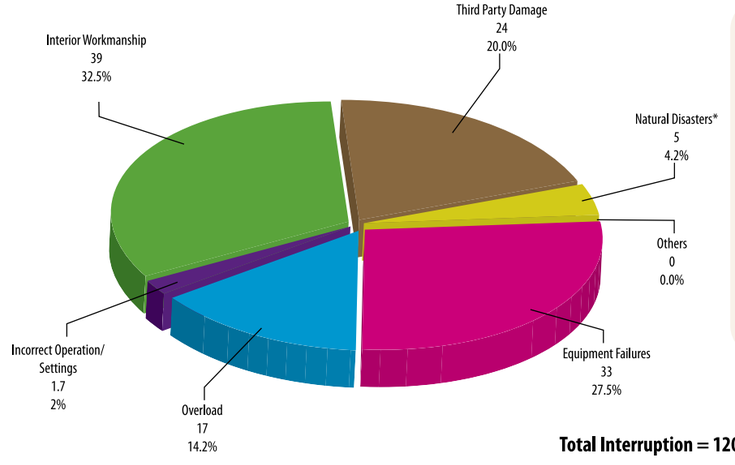
Causes Of Interruptions – Other Electricity Distributors

Table 8 : Causes of Unscheduled Electricity Supply Interruptions Reported by Electricity Distribution Apart from TNB and SESB for Year 2004 to 2006

Unscheduled Causes of Interruptions	K.K.I.P Power Sdn Bhd			NUR Distribution Sdn Bhd		
	2004	2005	2006	2004	2005	2006
Natural Disasters (wind, storm, flood, land slides, etc.)	0	0	0	3	1	1
Equipment Failures	0	5	2	8	11	14
Overload	0	0	0	8	5	4
Incorrect Operation / Settings	0	0	0	1	0	1
Inferior Workmanship	0	0	0	13	19	7
Caused by Third Parties	16	3	25	6	13	5
Others	0	0	0	0	0	0
Total Number	16	8	27	39	49	32

For NUR Distribution Sdn Bhd, equipment failures were the major causes of unscheduled interruptions, whereas for K.K.I.P Power Sdn Bhd (the distributor in Kota Kinabalu Industrial Park), the damage to the distribution network by third parties was the major cause.

Figure 47 : Total Causes of Unscheduled Electricity Supply Interruptions of NUR Distribution for Year 2004 to 2006



Note :

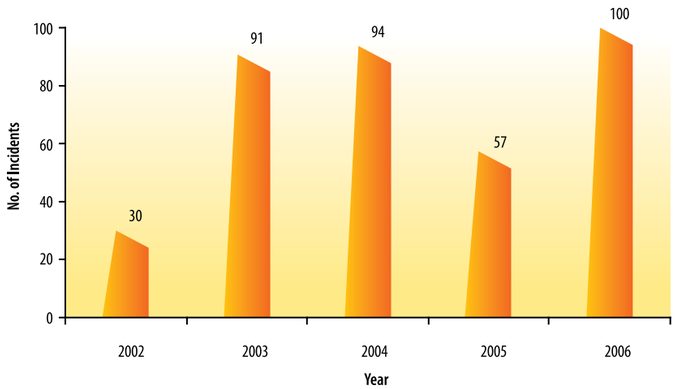
* (wind, storm,flood, land slides, etc.)

Over the last 3 years, the interruptions caused due to inferior workmanship was the highest cause at 32.5% compared to other causes.

VOLTAGE QUALITY

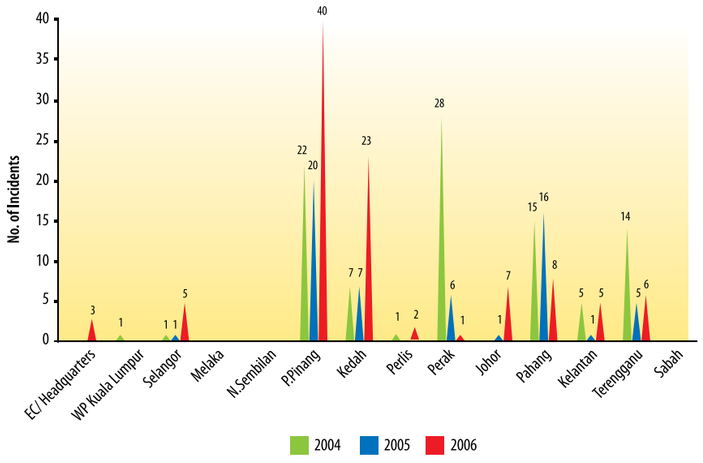
Incidents Of Overvoltage

Figure 48 : Overvoltage Incidents Reported for Year 2002 to 2006



The number of complaints on overvoltage incidents received by Energy Commission had increased by 75.4% from 57 incidents in 2005 to 100 incidents in 2006.

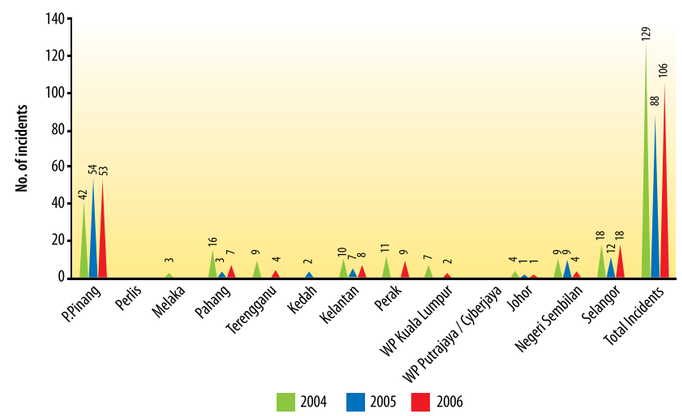
Figure 49 : Number of Incidents of Overvoltage Reported in Various States in Peninsular Malaysia and Sabah for Year 2004 to 2006



Pulau Pinang recorded the highest overvoltage incidents compared to others with 40 incidents.

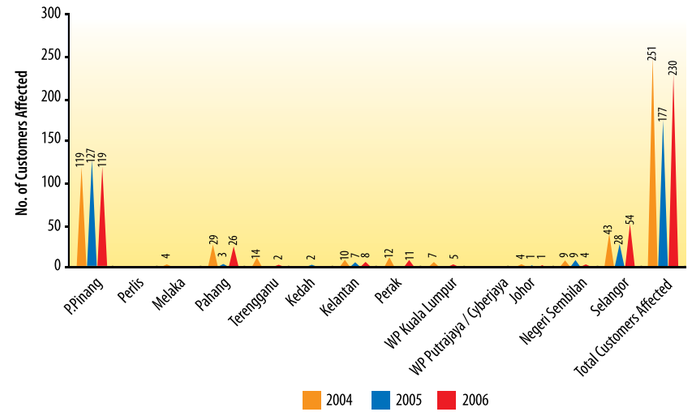
Voltage Dips In TNB's Supply System

Figure 50 : Number of Voltage Dip Incidents Reported in Major Industrial Estates in Peninsular Malaysia for Year 2004 to 2006



The number of voltage dips incidents reported at major industrial areas in Peninsular Malaysia increased by 20.5% from 88 in 2005 to 106 incidents in 2006.

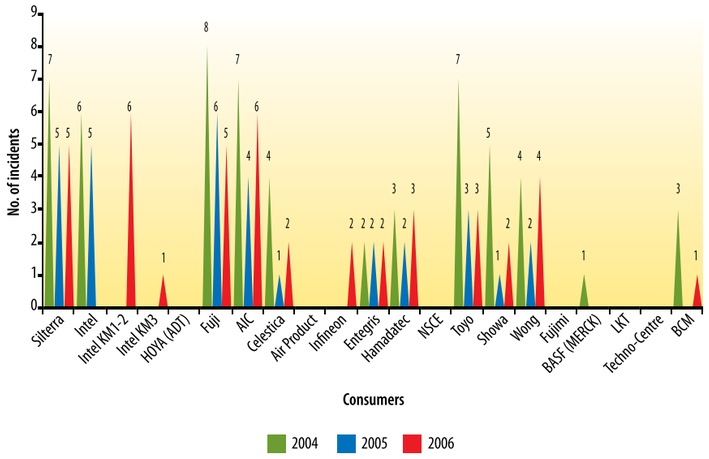
Figure 51 : Number of Customers in the Major Industrial Estates Affected by Voltage Dips for Year 2004 to 2006



The number of consumers affected also increased by 30.0% from 177 in 2005 to 230 in 2006.

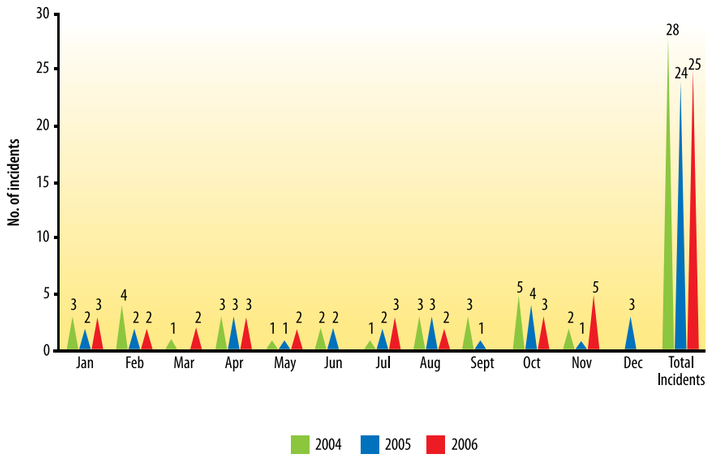
Voltage Dips In NUR's Supply System

Figure 52 : The Number Voltage Dip Incidents which Affected Operations of Industrial Customers in KHTP for Year 2004 to 2006



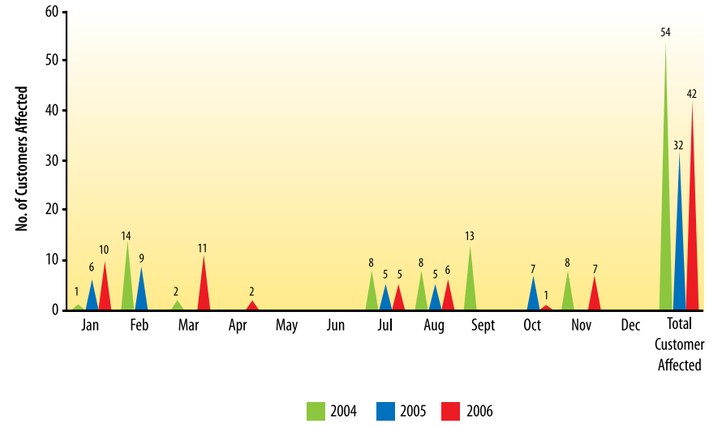
Some large industrial consumers such as Intel Products (M) Sdn Bhd, AIC Semiconductor Sdn Bhd and Fuji Electric (M) Sdn Bhd were among the companies affected frequently by the voltage dips incidents in Kulim Hi-Tech Park.

Figure 53 : Number of Voltage Dip Incidents in Kulim Hi Tech Park (KHTP) from the Year 2004 to 2006



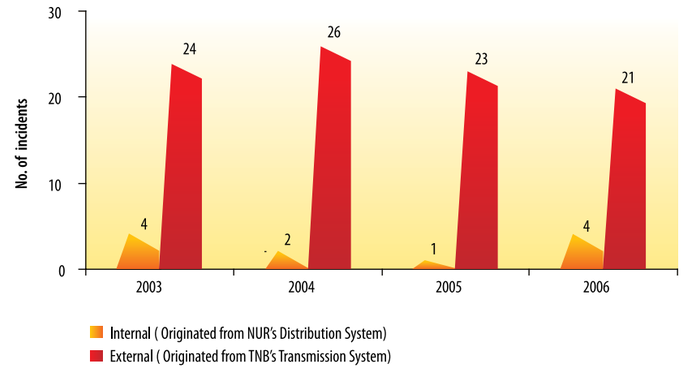
The number of voltage dips incidents in KHTP in 2006 recorded no significant increase compared with the previous year.

Figure 54 : Number of Customers in KHTP Affected by Voltage Dips from the Year 2004 to 2006



However, the number of consumers affected by the voltage dips incidents increased by 31.3% to 42 in 2006 compare to 32 in the year 2005.

Figure 55 : Incidents of Voltage Dips Affecting Consumers in KHTP



Over the last 4 years, the number of voltage dip incidents originating from TNB's transmission system was higher compared with incidents originated from NUR's Distribution system itself.

QUALITY OF SERVICE

Annual Performance Report On Customer Services

The reports on performance of customer services of the three utilities for the last few years are as shown in Appendix I, II and III. These reports cover 15 types of services. Based on those reports, the overall performance of the utilities indicated an improvement in their delivery of services to the customers.

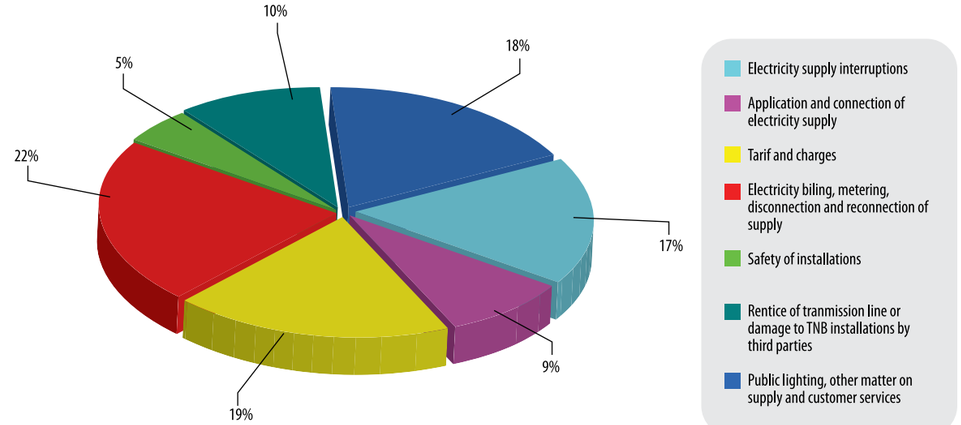
Complaints Received By The Energy Commission

Table 9 : Number and Type of Complaints Received by the Energy Commission for Year 2003 to 2006

Electricity Supply Services				
Issues	**No. of Complaints Received**			
	2003	**2004**	**2005**	**2006**
Electricity supply interruptions	27	15	31	33
Application and connection of electricity supply	11	19	21	18
Tariff and charges	17	13	14	37
Electricity billing, metering, disconnection and reconnection of supply	7	10	12	39
Safety of installations	23	18	5	10
Rentice of transmission line or damage to TNB installations by third parties	13	10	16	19
Public lighting, other matter on supply and customer services	19	16	18	34
TOTAL	**117**	**101**	**117**	**190**
Quality of Supply				
Overvoltage	91	94	57	100
Power quality (dips, surges etc.)	4	6	3	4
TOTAL	**95**	**100**	**60**	**104**

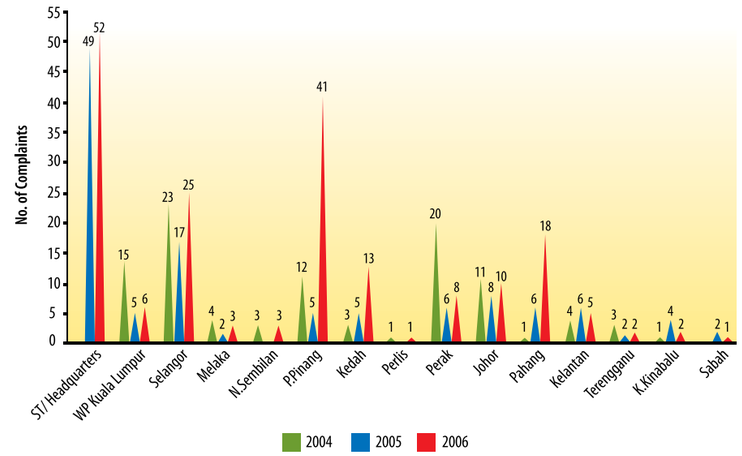
The number of complaints received in the year 2006 increased significantly compared with the previous 3 years.

Figure 56 : Statistics of Complaints of Electricity Supply Services Received in 2006



Complaints regarding electricity billing, metering, disconnection and reconnection of supply were the most frequent in the year 2006, i.e. 22% of the total complaints received.

Figure 57 : Statistics of Complaints of Electricity Supply Services Reported in Various States in Peninsular Malaysia for Year 2004 to 2006



The number of consumers complaints received by Energy Commission Headquarters and Pulau Pinang recorded the highest compared to other states.

Table 10 : Status of Resolution of Complaints in 2006

	Services	**Supply**
No. of Cases Resolved	171	102
No. of Cases Not Resolved Yet	19	2
Total Cases	**190**	**104**

About 92.9% of the total complaints reported were resolved in the year 2006. Various efforts have been taken by the Energy Commission to resolve the complaints such as site investigation, having meetings with the relevant parties, issuing opinions and directives to the utilities etc.

AVERAGE SELLING PRICES OF ELECTRICITY

Average Selling Prices of Utilities

Table 11 : Average Selling Prices of Electricity in Malaysia and Some Countries in Asia in 2006

Utility/ Country	Domestic (sen/kWh)	Commercial (sen/kWh)	Industrial (sen/kWh)	Public Lighting (sen/kWh)	Agriculture (sen/kWh)	Overall (sen/kWh)
TNB	24.57	30.79	23.83	17.00	30.02	26.09
SESB	21.91	28.21	23.74	29.97	N/A	24.85
SESCO	31.20	32.14	19.36	47.07	N/A	26.95
Egat, Thailand	32.73	35.40	29.97	N/A	N/A	31.37
PLN, Indonesia	22.67	30.14	24.82	25.33	N/A	24.92
Meralco, Philippines	62.89	58.00	50.24	69.38	N/A	57.50
Kepco, Korea	37.01	38.94	25.26	29.23	N/A	30.91
CLP, Hong Kong	N/A	N/A	N/A	N/A	N/A	46.62
Taipower, Taiwan	30.33	29.86	21.01	N/A	N/A	24.79
Tepco, Japan	66.93	69.38	69.38	N/A	N/A	67.21

Notes :

1. Average Selling Prices, of SESB were taken from period September 2005 to August 2006
2. The Average Selling Price for Tepco, Japan were taken from period April 2005 to Mac 2006
3. Average Selling Price Sales for Kepco, Korea & CLP, Hong Kong were taken from period January 2006 to June 2006
4. Since Electricity Singapore Industry (ESI) under open market therefore Singapore Power cannot disclosed any information on tariff

N/A – Not Available

The average selling prices of TNB in the year 2006 increased to 26.1 sen/kWh compared to 23.5 sen/kWh in the previous year. The Government had approved the electricity tariff restructuring with an average 12% increment in order to balance TNB's declining financial position. The new tariff took effect on 1st June 2006. Although the average selling prices increased it is still lower in comparison with other countries in the region.

Figure 58 : Comparison of Average Selling Prices of Electricity for Domestic Customers in 2006

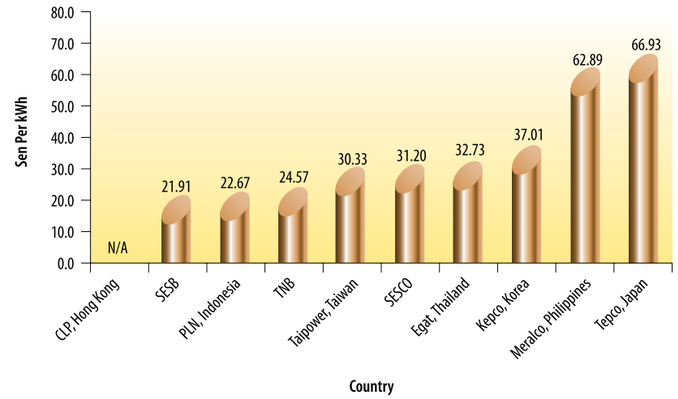


Figure 59 : Comparison of Average Selling Prices of Electricity for Commercial Customers in 2006

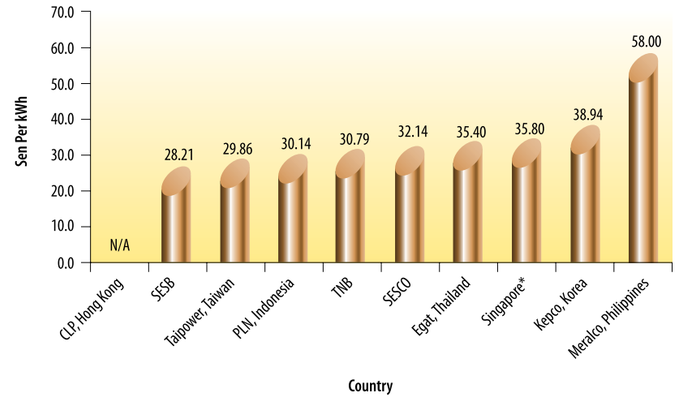


Figure 60 : Comparison of Average Selling Prices of Electricity for Industrial Customers in 2006

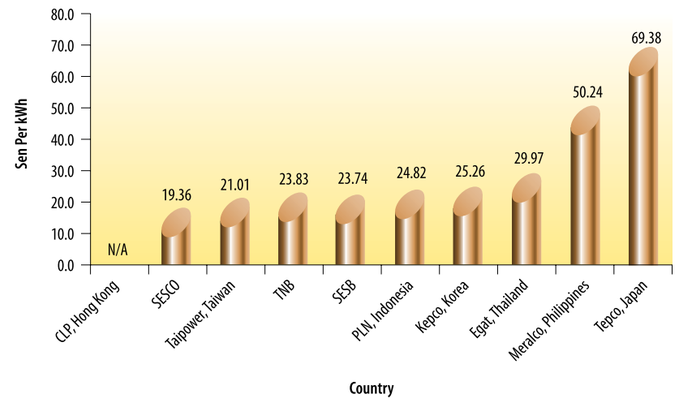


Figure 61 : Comparison of Average Selling Prices of Electricity for Street Lighting in 2006

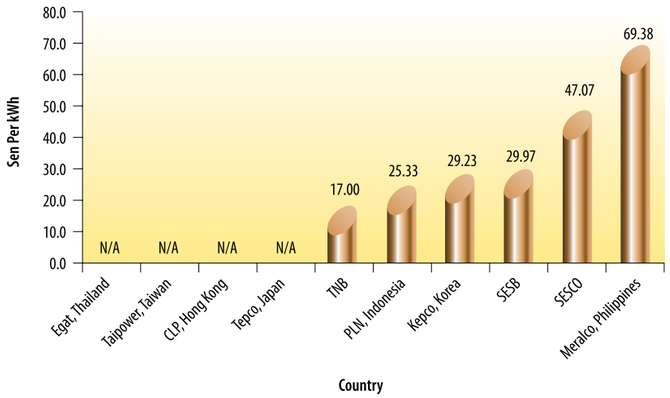
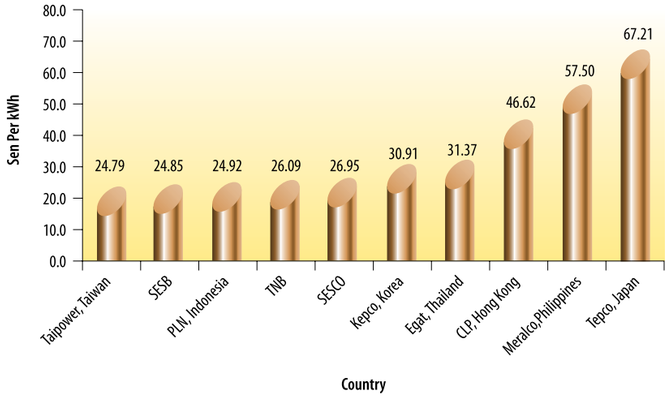


Figure 62 : Comparison of Average Selling Prices of Electricity in 2006



In comparison the average selling price of TNB indicates the 4th lowest after Taiwan, SESB and Indonesia. Taiwan had the lowest average selling prices in 2006, partly contributed by generation of electricity by nuclear energy resources which was about 22% from the total electricity generation resources.

APPENDIX I

REPORT ON THE PERFORMANCE OF CUSTOMER SERVICES OF TNB FOR FINANCIAL YEARS 2001/02 TO 2005/06

Details	Performance in 2001/02	Performance in 2002/03	Performance in 2003/04	Performance in 2004/05	Performance in 2005/06
1. Connection of Electricity Supply					
A. Change Of Consumers					
No. of applications	124,302	127,648	131,723	175,887	109,159
Connection within 2 working days (%)	100	99	97	98	98
B. New Supply (Low Voltage)					
i. Individual Applications Under Normal Conditions					
No. of applications	217,289	248,267	247,984	277,347	218,872
Connection within 2 working days after an appointment for connection (%)	100	99	96	96	97
ii. Individual Applications Under Abnormal Conditions					
No. of applications	4,795	8,929	12,174	15,786	4,275
Connection within 2 weeks after an appointment for connection (%)	100	98	100	95	99
iii. Bulk Supply Application And Housing Schemes					
No. of applications	145,915	120,936	106,819	156,606	125,466
Connection within 1 month after an appointment for connection (%)	100	99	100	99	98
2. Supply Restoration After Breakdowns					
i. Reports					
No. of reports	1,243,326	1,114,240	1,156,186	2,616,759	1,367,415
Consumers being given report numbers (%)	94	82	84	92	87
ii. Minor Breakdowns					
No. of minor breakdowns	67,405	66,321	84,203	115,226	152,175
Breakdown rectified within 4 hours (%)	93	96	96	91	99
iii. Major/Extra Ordinary Breakdowns					
No. of major breakdowns	7,138	7,476	8,440	19,469	13,728
Restoration within 2 working days (%)	95	99	97	48	100

Details	Performance in 2001/02	Performance in 2002/03	Performance in 2003/04	Performance in 2004/05	Performance in 2005/06
3. Supply Reconnection After Disconnection					
No. of supply disconnections	990,354	983,017	654,946	864,208	807,729
Bills paid before 1:00 p.m. on disconnection day	589,734	555,666	355,150	556,397	484,600
Supply reconnection on the same day for bills paid before 1:00 p.m. (%)	99	99	100	98	100
4. Supply Interruptions Which Are Planned / Scheduled					
No. of scheduled interruptions	8,969	6,673	8,831	8,117	14,807
Consumers given 24 hours notice (%)	96	95	90	86	98
Consumers not given notice (%)	2	2	2	6	2
5. Meter Reading					
No. of consumers with estimated readings exceeding 3 consecutive months	420,870	360,160	355,318	353,369	447,339
Notice given to customers with estimated readings exceeding 3 consecutive months (%)	96	97	97	98	99
6. Enquiries / Written Complaints From Consumers					
i. Written enquiries including questions regarding accounts/bills					
No. of written complaints received	4,659	5,067	7,009	8,601	9,210
Reply within 7 working days (%)	100	100	98	99	99
7. Complaints Through Telephone					
No. of complaints through telephone which could not be settled	37,735	35,694	29,145	22,555	75,065
Consumers recontacted within 24 hours (%)	100	99	99	97	100

Details	Performance in 2001/02	Performance in 2002/03	Performance in 2003/04	Performance in 2004/05	Performance in 2005/06
8. Appointment For Meter Accuracy Check					
No. of appointments for meter accuracy check	10,099	6,645	10,057	10,884	12,067
Meter accuracy check carried out within 2 working days (%)	99	100	99	98	98
9. Meter Replacement					
No. of meters replacement	179,413	275,353	97,935	122,472	100,763
Meter replacement within 2 working days (%)	100	100	98	99	99
10. Appointment With Consumers					
i. For Appointments Outside TNB Premises					
Arrival of TNB officers not more than 30 minutes from agreed time (%)	100	100	100	100	100
ii. Postponement by TNB					
Subsequent appointment made within 2 working days (%)	100	99	97	93	100
11. Deposits					
No. of consumers found after 6 months that their deposits exceed average consumption of 2 months	30,476	26,955	28,239	4,635	1,343
Consumers who have the excess deposits returned (%)	100	100	94	99	100
12. Refund of Consumer Deposits					
No. of consumers who have forwarded all required documents for refund of deposits	82,097	94,041	87,330	107,362	96,043
Consumers who have their deposits refunded within 2 months (%)	99	98	97	97	98
13. Collection					
Proof of payment sent to payment via mail within 7 working days (%)	100	97	97	100	100

Details	Performance in 2001/02	Performance in 2002/03	Performance in 2003/04	Performance in 2004/05	Performance in 2005/06
14. Supply Disconnection					
i. With 24 hours Notice	12,045	6,077	1,714	32,598	15,709
No. of disconnections due to dangerous consumer installations	11,544	3,854	1,103	29,455	1,103
No. of disconnections due to suspicion of theft of electricity	35	317	609	3,105	14,089
No. of disconnections due to electricity meter being damaged	466	1,906	2	38	517
ii. Without Any Notice	378,933	365,494	235,338	369,386	200,003
No. of disconnections due to failure to pay the bills within 15 days after issuance of bill	364,269	353,168	211,032	317,527	193,735
No. of disconnections due to failure to pay additional deposits within 7 days from the date of notice	12,422	12,323	22,136	50,998	5,278
No. of disconnections of installations which are dangerous	2,242	3	2,170	861	990
15. Special Consumers Who Face Problems In Paying Electric Bills	436	448	599	782	522
No. of handicapped consumers who appealed to avoid disconnection	48	40	65	95	44
No. of senior consumers who appealed to avoid disconnection	64	56	77	227	248
No. of handicapped consumers who were assisted in payment of bills	150	164	195	203	126
No. of senior consumers who were assisted in payment of bills	174	188	262	257	104

APPENDIX II

REPORT ON THE PERFORMANCE OF CUSTOMER SERVICES OF SESB FOR FINANCIAL YEARS 2001/02 TO 2005/06

Details	Performance in 2001/02	Performance in 2002/03	Performance in 2003/04	Performance in 2004/05	Performance in 2005/06
1. Connection of Electricity Supply					
A. Change of Consumers					
No. of applications	6,240	6,401	9,597	7,600	11,410
Connection within 2 working days (%)	91.3	85.9	92.3	92.0	88.5
B. New Supply (Low Voltage)					
i. Individual Applications Under Normal Conditions					
No. of applications	8,461	14,166	7,513	16,571	17,130
Connection within 4 working days after an appointment for connection (%)	94.7	71.7	60.2	70.0	96.3
ii. Individual Applications Under Abnormal Conditions					
No. of applications	35	N/A	N/A	N/A	N/A
Percentage connected within 2 weeks after an appointment for connection (%)	85.7	N/A	N/A	N/A	N/A
iii. Bulk Supply Application And Housing Schemes					
No. of applications	2,437	525	653	5,342	6,165
Connection within 1 month after an appointment for connection (%)	99.9	80.0	56.5	69.9	58.2
2. Supply Restoration After Breakdowns					
i. Reports					
No. of reports	58,263	149,172	157,866	223,354	260,572
Consumers being given report numbers (%)	99.7	100	97.7	95.0	95.9
ii. Minor Breakdowns					
No. of minor breakdowns	6,341	8,597	11,467	14,919	21,584
Breakdown rectified within 6 hours (%)	92.8	100	94.9	80.0	81.5
iii. Major/Extra Ordinary Breakdowns					
No. of major breakdowns	2,051	1,271	791	3,124	928
Restoration within 4 days (%)	100	83.6	89.9	90.0	81.9

Details	Performance in 2001/02	Performance in 2002/03	Performance in 2003/04	Performance in 2004/05	Performance in 2005/06
3. Supply Reconnection After Disconnection					
No. of supply disconnections	47,673	63,480	52,126	56,746	74,474
Bills paid before 1:00 p.m. on disconnection day	25,379	30,674	26,793	55,611	70,510
Supply reconnection on the same day for bills paid before 1:00 p.m. (%)	98.8	48.3	98.2	98.0	94.7
4. Supply Interruptions Which Are Planned / Scheduled					
No. of scheduled interruptions	449	802	1,003	1,659	2,010
Consumers given 24 hours notice (%)	93.6	100	72.9	80.0	80.0
5. Meter Reading					
No. of consumers with estimated readings exceeding 3 Consecutive months	11,614	8,389	12,215	13,251	4,398
Notice given to customers with estimated readings exceeding 3 consecutive months (%)	26.2	25.5	47.5	49.5	1.32
6. Enquiries / Written Complaints From Consumers					
i. Written enquiries including questions regarding accounts/bills					
No. of written complaints received	148	176	364	262	228
Reply within 7 working days (%)	91.9	52.8	49.7	51.5	58.3
7. Complaints Through Telephone					
No. of complaints through telephone which could not be settled	304	1,246	1,620	7,017	2,291
Consumers recontacted within 24 hours (%)	96.1	15.9	15.4	41.6	11.3
8. Appointment For Meter Accuracy Check					
No. of appointments for meter accuracy check	693	989	2,328	2,025	1,251
Meter accuracy check carried out within 7 working days (%)	95.4	88.9	62.1	51.9	40.1

Details	Performance in 2001/02	Performance in 2002/03	Performance in 2003/04	Performance in 2004/05	Performance in 2005/06
9. Meter Replacement					
No. of meters replacement	2,246	3,956	1,358	3,704	3,681
Meter replacement within 2 weeks (%)	87.2	74.2	66.9	67.3	61.3
10. Appointment With Consumers					
i. For Appointments Outside SESB Premises					
Arrival of SESB officers not later than from agreed time (%)	93.6	95.9	87.9	82.6	83.5
ii. Postponement by SESB					
Subsequent appointment made within 2 working days (%)	100	52.4	84.2	79.7	79.8
11. Deposits					
No. of consumers found after 6 months that their deposits exceed average consumption of 2 months	9	12,798	2,035	1,244	1,351
Consumers who have the excess deposits returned (%)	100	6.5	91.2	89.9	89.9
12. Refund of Consumer Deposits					
No. of consumers who have forwarded all required documents for refund of deposits	4,630	4,744	4,579	5,820	5,660
Consumers who have their deposits refunded within 2 months (%)	86.7	69.4	74.3	75.0	79.5
13. Collection					
Proof of payment sent to payment via mail within 7 working days (%)	59.9	58.6	0.0	73.6	75.0

Details	Performance in 2001/02	Performance in 2002/03	Performance in 2003/04	Performance in 2004/05	Performance in 2005/06
14. Supply Disconnection					
i. With 24 hours Notice					
No. of disconnections due to dangerous consumer installations	25,766	4,619	415	500	480
No. of disconnections due to suspicion of theft of electricity	529	228	227	492	410
No. of disconnections due to electricity meter being damaged	8	160	320	310	250
ii. Without Any Notice					
No. of disconnections due to failure to pay the bills within 15 days after issuance of bill	29,373	25,983	52,126	56,746	36,003
No. of disconnections due to failure to pay additional deposits within 7 days from the date of notice	1	1,021	1,478	315	231
No. of disconnections of installations which are dangerous	0	14	21	30	25
15. Special Consumers Who Face Problems In Paying Electric Bills					
No. of handicapped consumers who appealed to avoid disconnection	34	24	28	40	1
No. of senior consumers who appealed to avoid disconnection	53	51	34	105	63
No. of handicapped consumers who were assisted in payment of bills	42	23	12	1	1
No. of senior consumers who were assisted in payment of bills	39	30	1	35	1

Note : (N/A) Not Available

APPENDIX III

REPORT ON THE PERFORMANCE OF CUSTOMER SERVICES OF NUR DISTRIBUTION SDN BHD FOR THE YEAR 2003 TO 2006

Details	Performance in 2003	Performance in 2004	Performance in 2005	Performance in 2006
1. Connection of Electricity Supply				
A. Change of Consumers				
No. of applications	9	17	26	11
Connection within 1 working day (%)	100	100	100	100
B. New Supply (Low Voltage)				
i. Individual Applications Under Normal Conditions				
No. of applications	351	221	170	249
Connection within 1 working day after an appointment for connection (%)	100	100	100	100
ii. Bulk Supply Application And Housing Schemes				
No. of applications	9	43	0	0
Connection within 1 weeks after an appointment for connection (%)	100	100	N/A	N/A
2. Supply Restoration After Breakdowns				
i. Reports				
No. of reports	N/A	N/A	N/A	N/A
Consumers being given report numbers (%)	N/A	N/A	N/A	N/A
ii. Minor Breakdowns				
No. of minor breakdowns	20	27	19	15
Breakdown rectified within 2 hours (%)	75	85	90	100
iii. Major/Extra Ordinary Breakdowns				
No. of major breakdowns	8	10	30	15
Restoration within 24 hours (%)	100	90	100	93

Details	Performance in 2003	Performance in 2004	Performance in 2005	Performance in 2006
3. Supply Reconnection After Disconnection				
No. of supply disconnections	23	138	46	128
Bills paid before 1:00 p.m. on disconnection day	23	136	46	128
Supply reconnection on the same day for bills paid before 1:00 p.m. (%)	100	99	100	100
4. Supply Interruptions Which Are Planned / Scheduled				
No. of scheduled interruptions	34	61	52	28
Consumers given 7 days notice (%)	100	90	81	100
5. Meter Reading				
No. of consumers with estimated readings exceeding 2 consecutive months	54	140	60	51
Notice given to customers with estimated readings exceeding 2 consecutive months (%)	96.3	99	95	92
6. Enquiries / Written Complaints From Consumers				
i. Written enquiries including question regarding accounts/bills				
No. of written complaints received	8	45	66	51
Reply within 5 working days (%)	100	100	99	100
7. Complaints Through Telephone				
No. of complaints through telephone which could not be settled	8	45	66	51
Consumers recontacted within 24 hours (%)	100	100	99	100
8. Appointment for Meter Accurancy Check				
No. of appointments for meter accurancy check	1	9	21	9
Meter accurancy check carried out within 1 working day (%)	100	100	100	100

Details	Performance in 2003	Performance in 2004	Performance in 2005	Performance in 2006
9. Meter Replacement				
No. of meter replacement	N/A	4	19	6
Meter replacement within 2 working days (%)	N/A	100	100	100
10. Appointment With Consumers				
i. For appointments Outside NUR Premises				
Arrival of NUR officers not more than 15 minutes from agreed time (No. of appointments)	105	299	280	328
ii. Postponement by NUR				
Subsequent appointment made within 1 working day (%)	100	100	100	100
11. Deposits				
No. of consumers found after 6 months that their deposits exceed average consumption of 2 months	0	0	0	0
Consumers who have the excess deposits returned (%)	N/A	N/A	N/A	N/A
12. Refund of Consumer Deposits				
No. of consumers who have forwarded all required documents for refund of deposits	19	79	51	65
Consumers who have their deposits refunded within 15 working days (%)	100	2.5	43	48
13. Collection				
Proof of payment sent to payment via mail within 5 working days (%)	100	N/A	93	92

Details	Performance in 2003	Performance in 2004	Performance in 2005	Performance in 2006
14. Supply Disconnection				
i. With 24 hours Notice				
No. of disconnections due to dangerous consumer installations	N/A	N/A	N/A	N/A
No. of disconnections due to suspicion of theft of electricity	N/A	N/A	N/A	N/A
No. of disconnections due to electricity meter being damaged	N/A	N/A	N/A	N/A
ii. Without Any Notice				
No. of disconnections due to failure to pay bills within 15 days after issuance of bil	N/A	N/A	N/A	N/A
No. of disconnections due to failure to pay additional deposits within 7 days from the date of notice	36	153	39	124
No. of disconnections of installations which are dangerous	1	6	1	N/A
15. Special Consumers Who Face Problems in Paying Electric Bills				
Special arrangement by NUR to collect from handicapped and senior consumers (No. of consumers)	0	0	0	0

Note : (N/A) Not Available

INDUSTRY STATISTICS AND INFORMATION

- *Tariff Rates in Malaysia*
- *Statistics of Tenaga Nasional Berhad (TNB)*
- *Statistics of Sabah Electricity Sdn. Bhd. (SESB)*
- *Statistics of Syarikat SESCO Berhad*
- *List of Independent Power Producers (IPPs)*
- *List of Small Renewable Energy Power Producers (SREP)*
- *List of Electricity Distributors*
- *List of Major Co-Generators*
- *Statistics of Self-Generation*
- *Other Important Statistics and Information of the Electricity Supply Industry*
- Key Contacts

Tariff Rates in Malaysia

Tariff Rates For Tenaga Nasional Berhad

No	Tariff Category	Unit	Rates
1	**Tariff A | Domestic Tariff**		
	First 200 kWh (1-200 kWh) per month	sen/kWh	21.8
	Next 800 kWh (201-1,000 kWh) per month	sen/kWh	28.9
	Over 1,000 kWh (1,001 kWh onwards) per month	sen/kWh	31.2
	The minimum monthly charge is RM3.00		
2	**Tariff B | Low Voltage Commercial Tariff**		
	For all kWh	sen/kWh	32.3
	The minimum monthly charge is RM7.20		
3	**Tariff C1 | Medium Voltage General Commercial Tariff**		
	For each kilowatt of maximum demand per month	RM/kW	19.50
	For all kWh	sen/kWh	23.4
	The minimum monthly charge is RM600.00		
4	**Tariff C2 | Medium Voltage Peak/Off-Peak Commercial Tariff**		
	For each kilowatt of maximum demand per month during the peak period	RM/kW	29.00
	For all kWh during the peak period	sen/kWh	23.4
	For all kWh during the off-peak period	sen/kWh	14.4
	The minimum monthly charge is RM600.00		
5	**Tariff D | Low Voltage Industrial Tariff**		
	For all kWh	sen/kWh	29.0
	The minimum monthly charge is RM7.20		
	Tariff Ds | Special Industries Tariff (for consumers who qualify only)		
	For all kWh	sen/kWh	27.2
	The minimum monthly charge is RM7.20		
6	**Tariff E1 | Medium Voltage General Industrial Tariff**		
	For each kilowatt of maximum demand per month	RM/kW	19.50
	For all kWh	sen/kWh	22.2
	The minimum monthly charge is RM600.00		
	Tariff E1s | Special Industrial Tariff (for consumers who qualify only)		
	For each kilowatt of maximum demand per month	RM/kW	15.10
	For all kWh	sen/kWh	21.5
	The minimum monthly charge is RM600.00		

No	Tariff Category	Unit	Rates
7	**Tariff E2 – Medium Voltage Peak / Off-Peak Industrial Tariff**		
	For each kilowatt of maximum demand per month during the peak period	RM/kW	24.40
	For all kWh during the peak period	sen/kWh	23.4
	For all kWh during the off-peak period	sen/kWh	14.4
	The minimum monthly charge is RM600.00		
	Tariff E2s – Special Industrial Tariff (for consumers who qualify only)		
	For each kilowatt of maximum demand per month during the peak period	RM/kW	21.00
	For all kWh during the peak period	sen/kWh	21.5
	For all kWh during the off-peak period	sen/kWh	12.3
	The minimum monthly charge is RM600.00		
8	**Tariff E3 | High Voltage Peak / Off-Peak Industrial Tariff**		
	For each kilowatt of maximum demand per month during the peak period	RM/kW	23.40
	For all kWh during the peak period	sen/kWh	22.2
	For all kWh during the off-peak period	sen/kWh	13.3
	The minimum monthly charge is RM600.00		
	Tariff E3s | Special Industrial Tariff (for consumers who qualify only)		
	For each kilowatt of maximum demand per month during the peak period	RM/kW	18.50
	For all kWh during the peak period	sen/kWh	20.3
	For all kWh during the off-peak period	sen/kWh	11.2
	The minimum monthly charge is RM600.00		
9	**Tariff F | Low Voltage Mining Tariff**		
	For all kWh	sen/kWh	24.5
	The minimum monthly charge is RM120.00		
10	**Tariff F1 | Medium Voltage General Mining Tariff**		
	For each kilowatt of maximum demand per month	RM/kW	13.60
	For all kWh	sen/kWh	20.1
	The minimum monthly charge is RM120.00		
11	**Tariff F2 | Medium Voltage Peak / Off-Peak Mining Tariff**		
	For each kilowatt of maximum demand per month during the peak period	RM/kW	19.20
	For all kWh during the peak period	sen/kWh	20.1
	For all kWh during off-peak period	sen/kWh	11.1
	The minimum monthly charge is RM120.00		

No	Tariff Category	Unit	Rates
12	**Tariff G | Street Lighting Tariff**		
	For all kWh (including maintenance)	sen/kWh	19.6
	For all kWh (excluding maintenance)	sen/kWh	12.3
	The minimum monthly charge is 15% of the calculated bill in a month		
13	**Tariff G1 | Neon & Floodlight Tariff**		
	For all kWh	sen/kWh	13.4
	The minimum monthly charge is 15% of the calculated bill in a month		
14	**Tariff H | Low Voltage Specific Agriculture Tariff**		
	For all kWh	sen/kWh	30.3
	The minimum monthly charge is RM7.20		
15	**Tariff H | Medium Voltage General Specific Agriculture Tariff**		
	For each kilowatt of maximum demand per month	RM/kW	19.50
	For all kWh	sen/kWh	22.6
	The minimum monthly charge is RM600.00		
16	**Tariff H2 | Medium Voltage Peak / Off-Peak Specific Agriculture Tariff**		
	For each kilowatt of maximum demand per month during the peak period	RM/kW	26.20
	For all kWh during the peak period	sen/kWh	23.4
	For all kWh during the off-peak period	sen/kWh	14.4
	The minimum monthly charge is RM600.00		

Tariff Rates For Top-Up and Standby Services
(Only For Co-Generators)

Tariff rates for Top-up and Standby Services (Only for Co-generators) are set out as follow:-

No	Tariff Category	Unit	Rates		
			Top-Up	Standby	
				Firm	Non-Firm
1	**Tariff C1 | Medium Voltage General Commercial Tariff**				
	Maximum demand charge per month	RM/kW	19.50	28.00	10.40
	For all kWh	sen/kWh	23.4		
2	**Tariff C2 | Medium Voltage Peak/Off-Peak Commercial Tariff**				
	For each kilowatt of maximum demand per month during the peak period	RM/kW	29.00	28.00	11.80
	For all kWh during the peak period	sen/kWh	23.4		
	For all kWh during the off-peak period	sen/kWh	14.4		
3	**Tariff E1 | Medium Voltage General Industrial Tariff**				
	Maximum demand charge per month	RM/kW	19.50	28.00	9.90
	For all kWh	sen/kWh	22.2		
4	**Tariff E2 | Medium Voltage Peak/Off-Peak Industrial Tariff**				
	For each kilowatt of maximum demand per month during the peak period	RM/kW	24.40	28.00	9.70
	For all kWh during the peak period	sen/kWh	23.4		
	For all kWh during the off-peak period	sen/kWh	14.4		
5	**Tariff E3 | High Voltage Peak/Off-Peak Industrial Tariff**				
	For each kilowatt of maximum demand per month during the peak period	RM/kW	23.40	28.00	8.50
	For all kWh during the peak period	sen/kWh	22.2		
	For all kWh during the off-peak period	sen/kWh	13.3		
6	**Tariff F1 | Medium Voltage General Mining Tariff**				
	Maximum demand charge per month	RM/kW	13.60	28.00	5.40
	For all kWh	sen/kWh	20.1		
7	**Tariff F2 | Medium Voltage Peak/Off-Peak Mining Tariff**				
	For each kilowatt of maximum demand per month during the peak period	RM/kW	19.20	28.00	7.50
	For all kWh during the peak period	sen/kWh	20.1		
	For all kWh during the off-peak period	sen/kWh	11.1		

Tariff Rates For Sabah Electricity Sendirian Berhad (SESB)

No	Tariff Category	Unit	Rates
1	**Domestic**		
	0-40 units per month	sen/kWh	24
	41-200 units per month	sen/kWh	16
	Above 200 units per month	sen/kWh	28
	Minimum monthly charge	RM	5.00
2	**Commercial Class 1**		
	0-1,000 units per month	sen/kWh	32
	Above 1,000 units per month	sen/kWh	27
	Minimum monthly charge	RM	15.00
3	**Commercial Class 2**		
	(For consumers with maximum demand above 500 kW)		
	Maximum demand charge per month	RM/kW	15.00
	All units per month	sen/kWh	25
	Minimum monthly charge	RM	1,000.00
4	**Industrial Class 1**		
	0-2,000 units per month	sen/kWh	32
	Above 2,000 units per month	sen/kWh	26
	Minimum monthly charge	RM	15.00
5	**Industrial Class 2**		
	(For consumers with maximum demand above 500 kW)		
	Maximum demand charge per month	RM/kW	15.00
	All units per month	sen/kWh	20
	Minimum monthly charge	RM	1,000.00
6	**Public Lighting**		
	All units per month	sen/kWh	30

Tariff Rates For Wilayah Persekutuan Labuan

Tariff Structure and Rates

No	Classifications	Unit	Rates
1	**Domestic (DM)**		
	0-40 kWh per month	sen/kWh	24
	41-200 kWh per month	sen/kWh	16
	201- above kWh per month	sen/kWh	28
	Minimum charge	RM	5.00
2	**Low Voltage Commercial (B)**		
	For all units	sen/kWh	24
	Minimum Charge	RM	6.00
3	**Medium Voltage General Commercial (C1)**		
	For each kilowatt of maximum demand per month	RM/kW	12.00
	All units	sen/kWh	18
	Minimum charge	RM	500.00
4	**Medium Voltage Peak/Off Peak Commercial (C2)**		
	For each kilowatt of maximum demand per month during the peak period	RM/kW	19.00
	All units during the peak period	sen/kWh	18
	All units during the off-peak period	sen/kWh	8
	Minimum charge	RM	500.00
5	**Low Voltage Industrial Tariff (D)**		
	For all units	sen/kWh	21
	Minimum charge	RM	6.00
6	**Medium Voltage General Industrial (E1)**		
	For each kilowatt of maximum demand per month	RM/kW	12.00
	All units	sen/kWh	16
	Minimum charge	RM	500.00
7	**Medium Voltage Peak / Off-Peak Industrial (E2)**		
	For each kilowatt of maximum demand per month during the peak period	RM/kW	17.00
	All units during the peak period	sen/kWh	16
	All units during the off-peak period	sen/kWh	8
	Minimum charge	RM	500.00
8	**Low Voltage Mining (F)**		
	For all units	sen/kWh	19
	Minimum charge	RM	100.00
9	**Medium Voltage Mining (F1)**		
	For each kilowatt of maximum demand per month	RM/kW	12.00
	All units	sen/kWh	16
	Minimum charge	RM	100.00
10	**Public Lighting**		
	All units	sen/kWh	30

Tariff Rates For Syarikat SESCO Berhad

No	Tariff Category	Unit	Rates
1	**Commercial**		
	Tariff C1		
	(Applicable to consumer taking commercial supply whose estimated monthly consumption does not exceeds 100,000 kWh)		
	0-100 units per month	sen/kWh	40
	101-5000 units per month	sen/kWh	34
	Above 5000 units per month	sen/kWh	30
	Minimum monthly charge	RM	10.00
2	**Tariff C2**		
	(Generally available on application to consumer taking commercial supply whose estimated monthly consumption exceeds 100,000 kWh)		
	Maximum demand price	RM/kW	12.00
	Energy Price	sen/kWh	25
	Minimum monthly charge	RM/kW	12.00
3	**Tariff C3**		
	(Generally available on application to consumer taking commercial supply whose estimated monthly consumption exceeds 100,000 kWh)		
	Peak Period (0700 hours-2400 hours)		
	Maximum demand price	RM/kW	20.00
	Energy Price	sen/kWh	25
	OFF-PEAK PERIOD (0000 hours-0700 hours)		
	Energy Price	sen/kWh	10
	Minimum monthly charge	RM/kW	20.00
4	**INDUSTRIAL**		
	Tariff I1		
	(Applicable to consumer taking industrial supply whose estimated monthly consumption does not exceeds 100,000 kWh)		
	0-100 units per month	sen/kWh	40
	101-3000 units per month	sen/kWh	30
	Above 3000 units per month	sen/kWh	21
	Minimum monthly charge	RM	10.00
5	**Tariff I2**		
	(Industrial available on application to consumer taking industrial supply whose estimated monthly consumption exceeds 100,000 kWh)		
	Maximum demand price	RM/kW	12.00
	Energy Price	sen/kWh	17
	Minimum monthly charge	RM/kW	12.00

No	Tariff Category	Unit	Rates
6	**Tariff I3**		
	(Generally available on application to consumer taking industrial supply whose estimated monthly consumption exceeds 100,000 kWh)		
	Peak Period (0700 hours-2400 hours)		
	Maximum demand Price	RM/kW	20.00
	Energy Price	sen/kWh	17
	OFF-PEAK PERIOD (0000 hours-0700 hours)		
	Energy Price	sen/kWh	10
	Minimum monthly charge	RM/kW	20.00
7	**Domestic**		
	Tariff D		
	(Applicable to consumer taking domestic supply)		
	0-100 units per month	sen/kWh	34
	101-400 units per month	sen/kWh	29
	Above 400 units per month	sen/kWh	33
	Minimum monthly charge	RM	5.00
8	**PUBLIC LIGHTING**		
	Tariff PL		
	(Applicable to consumer taking lighting supply)		
	Energy Price	sen/kWh	47
	Minimum monthly charge	RM	10.00

Statistics of Tenaga Nasional Berhad (TNB)

Tenaga Nasional Berhad (TNB)

		2000	2001	2002	2003	2004	2005	2006
A.	**Sales of Energy (GWh)**							
(1)	Domestic	9,093	10,315	10,939	11,765	12,530	13,497	14,132
(2)	Commercial	14,747	16,196	17,032	18,367	19,967	21,675	23,284
(3)	Industrial	29,818	30,754	31,371	33,440	35,732	37,115	37,142
(4)	Public Lighting	527	590	629	663	682	767	838
(5)	Mining	69	67	64	56	54	48	42
(6)	Export	7	5	19	193	605	1,694	2,323
(7)	Others	-	-	-	-	-	-	10
	Total	**54,261**	**57,927**	**60,054**	**64,484**	**69,570**	**74,796**	**77,771**
B.	**Generation Mix (GWh)**							
(1)	Hydro	5,971	4,992	4,444	4,032	4,656	4,908	5,301
(2)	Natural Gas	23,223	22,826	& 21,636	16,719	15,859	18,569	21,293
(3)	Coal	4,038	6,238	8,953	7,599	6,129	##	-
(4)	MFO	1,424	1,600	3,573	330	185	5	111
(5)	Diesel	-	-	-	-	-	-	41
(6)	Others	-	-	-	-	-	-	-
	Total	**34,685**	**35,891**	**38,606**	**28,680**	**26,842**	**23,482**	**26,746**

Note : ## Starting from the year 2005, TNB Janamanjung and KEV are classified as IPPs

		2000	2001	2002	2003	2004	2005	2006
C.	**No. of Consumers**							
(1)	Domestic	4,186,799	4,354,125	4,569,628	4,788,255	5,009,377	5,210,747	5,397,799
(2)	Commercial	792,887	821,801	862,826	903,981	940,359	976,368	1,014,907
(3)	Industrial	21,235	21,483	21,382	21,317	21,249	24,064	24,843
(4)	Public Lighting	26,158	26,439	27,793	37,391	39,071	42,032	39,233
(5)	Mining	49	42	45	32	31	28	18
(6)	Others (Agriculture)	-	-	-	-	-	-	481
	Total	**5,027,128**	**5,223,890**	**5,481,674**	**5,750,976**	**6,010,087**	**6,253,239**	**6,477,281**
D.	**Generation Capacity (MW)**							
(1)	Hydro	1,891	1,874	1,911	1,911	1,911	1,881	1,911
(2)	Natural Gas	3,266	3,427	3,302	3,430	3,156	3,871	4,367
(3)	Coal	600	1,524	1,447	1,421	3,670	##	-
(4)	MFO	1,426	1,405	1,396	1,402	574	266	-
(5)	Diesel	-	-	-	-	-	-	68
(6)	Others	-	-	-	-	-	-	-
(7)	Total Generation	**7,183**	**8,230**	**8,056**	**8,164**	**9,311**	**6,018**	**6,346**
(8)	Overall Availability (%)	86	N/A	N/A	85	83	86	91
(9)	Cost Of Generation (sen/kWh)							
	a) Own Generation	10.60	10.89	11.25	10.20	9.3	9.8	9.38
	b) Energy Purchased	15.55	14.84	15.26	14.95	N/A	17.78	15.32
	c) Overall Cost - (a) & (b)	12.76	12.70	13.05	11.69	N/A	14.33	N/A

Tenaga Nasional Berhad (TNB)

		2000	2001	2002	2003	2004	2005	2006
E.	**Transmission System Capacity**							
(1)	**Transmission System Lines/Cables (km)**							
	i. 500 KV	* 715	* 890	* 890	* 890	* 890	* 890	* 890
	ii. 275 KV	5,425	5,574	5,736	6,103	6,180	6,248	6,730
	iii. 132 KV	8,420	9,576	9,164	9,943	10,161	10,672	10,436
	iv. 66 KV	316	346	346	171	171	171	171
(2)	**Transmission Substations**							
	i. Number	366	374	349	@ 407	366	375	@ 435
	ii. Capacity (MVA)	48,973	51,033	56,673	61,335	65,476	69,381	@ 75,189
(3)	**Performance**							
	a) Number of Incidents of Trippings	176	117	118	418	104	90	525
	b) Unsupplied Energy (MWh)	3,129	2,789	3,662	2,734	9,232	21,939	1,586
F.	**Distribution System Capacity**							
(1)	**Distribution System Lines/Cables (km)**							
	i. Overhead Lines	# 6,371	174,479	199,920	168,731	218,282	155,281	159,483
	ii. Underground Cables	175,762	220,536	228,804	273,700	315,197	322,856	327,238
(2)	**Distribution Substations**							
	i. Number	45,948	45,987	47,483	48,916	50,509	56,679	58,265
	ii. Capacity (MVA)	35,083	38,191	41,231	41,954	44,579	48,377	48,906
(3)	**Performance**							
	Number of Interruption of Supply	51,964	47,296	31,328	27,047	29,932	⁑ 85,811	57,808

		2000	2001	2002	2003	2004	2005	2006
G.	**Performance Highlights**							
(1)	**Maximum Demand (MW)**	9,712	10,060	10,783	11,329	12,023	12,493	12,990
(2)	**Total Units Generated (GWh)**	34,685	35,891	38,606	28,680	26,842	23,482	26,746
(3)	**Total Units Sold (GWh)**	54,261	57,927	60,054	64,484	69,570	74,796	77,771
(4)	**Sales of Electricity (RM million)**	12,751	13,453	14,097	15,050	16,224	17,009	N/A
(5)	**Installed Generation Capacity (MW)****	7,183	8,230	8,055	8,163	9,311	6,018	6,346
(6)	**Total Number of Employees**	22,301	23,063	23,589	24,124	24,887	24,259	24,429
(7)	**Revenue Per Employee (RM/Employee)**	0.57	0.58	0.60	0.62	0.65	0.70	N/A
(8)	**Units Sold Per Employee (GWh/Employee)**	2.43	2.51	2.55	2.67	2.80	3.08	3.18
(9)	**Generation Capacity Per Employee (MW/Employee)**	0.32	0.36	0.34	0.34	0.37	0.25	0.26
(10)	**Total Units Purchased (GWh)**	27,740	28,817	31,391	43,200	54,755	60,409	61,916
(11)	**Total Units Exported (GWh)**	7	5	19	193	605	1,694	2,323
(12)	**Total Units Imported (GWh)**	13	5	9	0.4	-	1.2	3.8
(13)	**Overall System Average Interruption Duration Index** (SAIDI)(minutes/customer/year)	351	281	149	114	156	166	105

Notes :

1. & **Including of generation using distillate**
2. * **440km operated at 275kV**
3. ** **Generation capacities of TNB Generation Sdn. Bhd. and TNB Hidro Sdn. Bhd.**
4. # **Excluding LV overhead lines**
5. @ **Including 49 Consumer's Substation**
6. **Years indicated are financial years**
7. ⁑ **This figure includes interruptions experienced by single consumer for a period of more than 1 minute.**

The data shown above is for financial year of the company. The data for calendar year differs slightly from the above data.

Statistics of Sabah Electricity Sdn. Bhd. (SESB)

Sabah Electricity Sdn. Bhd. (SESB)

		2000	2001	2002	2003	2004	2005	2006
A.	**Sales of Energy (GWh)**							
(1)	Domestic	643	646	691	725	801	899	937
(2)	Commercial	740	766	839	874	950	1,034	1,104
(3)	Industrial	499	564	622	699	771	797	889
(4)	Public Lighting	31	29	30	34	35	39	39
(5)	Mining	-	-	-	-	-	-	-
(6)	Export	-	-	-	-	-	-	-
(7)	Others	-	-	-	-	-	-	-
	Total	**1,913**	**2,005**	**2,182**	**2,332**	**2,557**	**2,769**	**2,969**
B.	**Generation Mix (GWh)**							
(1)	Hydro	491	461	437	453	450	469	547
(2)	Gas	159	258	388	471	466	539	591
(3)	Coal	-	-	-	-	-	-	-
(4)	Oil	-	-	-	-	-	-	159
(5)	Diesel	414	420	427	477	478	131	311
(6)	Others	-	-	-	-	-	-	50
	Total	**1,064**	**1,139**	**1,252**	**1,401**	**1,394**	**1,139**	**1,658**

		2000	2001	2002	2003	2004	2005	2006
C.	**No. of Consumers**							
(1)	Domestic	242,309	252,869	261,447	265,795	280,325	292,025	305,527
(2)	Commercial	43,198	45,142	46,797	47,550	49,888	52,010	54,843
(3)	Industrial	2,681	2,628	2,613	2,598	2,628	2,634	2,653
(4)	Public Lighting	2,224	2,342	2,524	2,672	2,959	3,088	3,357
(5)	Mining	-	-	-	-	-	-	-
(6)	Others	-	-	-	-	-	-	-
	Total	**290,412**	**302,981**	**313,381**	**318,585**	**335,800**	**349,757**	**366,380**
D.	**Generation Capacity (MW)**							
(1)	Hydro	66	66	66	66	66	51	51
(2)	Gas	104	104	104	104	104	104	106
(3)	Coal	-	-	-	-	-	-	-
(4)	Oil	-	-	-	-	-	-	108
(5)	Diesel	300	311	302	290	290	194	88
(6)	Others [Rural Electrifications - Diesel & Mini-Hydro]	*2	*6	*6	*6	*6	-	-
(7)	Total Generation	**472**	**487**	**478**	**466**	**466**	**349**	**353**
(8)	Overall Availability(%)	N/A	N/A	82.32	83.50	78.4	77.6	85.2
(9)	Cost Of Generation (sen/kWh)							
	a) Own Generation	16.50	13.90	18.10	17.62	21.02	24.30	12.90
	b) Energy Purchased	30.78	26.70	26.70	23.35	25.79	25.80	20.40
	c) Overall Cost - (a) & (b)	24.16	21.04	21.04	20.9	39.15	25.20	17.10

***Mini-hydro**

Sabah Electricity Sdn. Bhd. (SESB)

		2000	2001	2002	2003	2004	2005	2006
E.	**Transmission System Capacity**							
(1)	**Transmission System Lines/Cables (km)**							
	i. 500 KV	-	-	-	-	-	-	-
	ii. 275 KV	-	-	-	-	-	-	640
	iii. 132 KV	497	542	542	1,870	1,227	1,552	927
	iv. 66 KV	123	123	123	122	123	123	123
(2)	**Transmission Substations**							
	i. Number	17	17	17	23	26	31	30
	ii. Capacity (MVA)	1,005	1,005	1,005	1,410	2,258	2,332	2,299
(3)	**Performance**							
	a) Number of Incidents of Trippings	46	N/A	31	22	25	18	36
	b) Unsupplied Energy (MWh)	1,000	2,153	548	660	573	476	866
F.	**Distribution System Capacity**							
(1)	**Distribution System Lines/Cables (km)**							
	i. Overhead Lines	11,593	12,056	13,020	13,500	* 4,987	* 5,167	* 5,180
	ii. Underground Cables	1,184	1,220	1,281	1,400	* 455	* 471	* 468
(2)	**Distribution Substations**							
	i. Number	4,012	4,411	4,453	4,196	4,687	4,727	4,929
	ii. Capacity (MVA)	1,496	1,433	2,296	2,265	2,500	2,803	3,852
(3)	**Performance**							
	Number of Interruption of Supply	10,361	10,442	9,457	10,083	14,308	23,441	25,778

*** Only 33 and 11 kV system**

		2000	2001	2002	2003	2004	2005	2006
G.	**Performance Highlights**							
(1)	**Maximum Demand (MW)**	373	366	391	448	481	548	594
(2)	**Total Units Generated (GWh)**	1,064	1,139	1,252	1,401	1,394	1,139	1,658
(3)	**Total Units Sold (GWh)**	1,913	2,005	2,182	2,332	2,557	2,769	2,969
(4)	**Sales of Electricity (RM million)**	474	496	598	591	640	697	638
(5)	**Installed Generation Capacity (MW)**	472	487	478	466	466	349	353
(6)	**Total Number of Employees**	2,033	2,062	2,097	2,096	2,084	2,058	2,200
(7)	**Revenue Per Employee (RM/Employee)**	0.23	0.24	0.29	0.28	0.31	0.34	0.29
(8)	**Units Sold Per Employee (GWh/Employee)**	0.94	0.97	1.04	1.11	1.23	1.35	1.35
(9)	**Generation Capacity Per Employee (MW/Employee)**	0.23	0.24	0.23	0.22	0.22	0.17	0.16
(10)	**Total Units Purchased (GWh)**	1,235	1,365	1,457	1,583	1,863	1,999	2,058
(11)	**Total Units Exported (GWh)**	-	-	-	-	-	-	-
(12)	**Total Units Imported (GWh)**	-	-	-	-	-	-	-
(13)	Overall System Average Interruption Duration Index (SAIDI)(minutes/customer/year) #	2,048	2,279	1,779	1,729	2,594	2,722	2,778

 # Distribution only

Statistics of Syarikat SESCO Berhad

Syarikat SESCO Berhad

		2000	2001	2002	2003	2004	2005	2006
A.	**Sales of Energy (GWh)**							
(1)	Domestic	669	742	805	864	919	992	1,040
(2)	Commercial	918	972	1,025	1,107	1,165	1,242	1,324
(3)	Industrial	1,257	1,321	1,381	1,463	1,553	1,661	1,627
(4)	Public Lighting	30	32	37	37	41	47	54
(5)	Mining	-	-	-	-	-	-	-
(6)	Export	-	-	-	-	-	-	-
(7)	Others	-	-	-	-	-	-	-
	Total	**2,874**	**3,067**	**3,248**	**3,471**	**3,678**	**3,942**	**4,045**
B.	**Generation Mix (GWh)**							
(1)	Hydro	479	503	388	454	371	527	363
(2)	Gas	1,249	1,175	1,460	1,449	1,438	1,466	1,665
(3)	Coal	-	-	-	-	-	-	-
(4)	Oil	266	249	124	-	-	-	-
(5)	Diesel	109	176	319	499	251	217	291
(6)	Others	-	-	-	-	-	-	-
	Total	**2,103**	**2,103**	**2,291**	**2,402**	**2,060**	**2,210**	**2,319**

		2000	2001	2002	2003	2004	2005	2006
C.	**No. of Consumers**							
(1)	Domestic	270,299	284,711	302,571	323,659	336,439	348,377	364,586
(2)	Commercial	49,631	51,899	53,993	56,069	58,259	60,336	62,399
(3)	Industrial	775	814	831	838	867	879	882
(4)	Public Lighting	3,468	3,800	4,150	4,437	4,783	5,175	5,534
(5)	Mining	-	-	-	-	-	-	-
(6)	Others	-	-	-	-	-	-	-
	Total	**324,173**	**341,224**	**361,545**	**385,003**	**400,348**	**414,767**	**433,401**
D.	**Generation Capacity (MW)**							
(1)	Hydro	101	101	101	101	101	101	101
(2)	Gas	291	291	289	288	274	271	271
(3)	Coal	-	-	-	-	-	-	-
(4)	Oil	68	75	50	-	-	-	-
(5)	Diesel	91	92	117	171	170	174	175
(6)	Others	-	-	-	-	-	-	-
(7)	Total Generation	**551**	**559**	**557**	**560**	**545**	**546**	**547**
(8)	Overall Availability(%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(9)	Cost Of Generation (sen/kWh)							
	a) Own Generation	12.08	13.02	11.48	12.16	14.0	14.5	16.6
	b) Energy Purchased	12.83	12.2	15.83	11.81	10.7	12.9	12.7
	c) Overall Cost - (a) & (b)	12.36	12.68	13.2	12.02	12.3	13.7	14.6

Syarikat SESCO Berhad

		2000	2001	2002	2003	2004	2005	2006
E.	**Transmission System Capacity**							
(1)	**Transmission System Lines/Cables (km)**							
	i. 500 KV	-	-	-	-	-	-	-
	ii. 275 KV	765	765	765	765	765	765	765
	iii. 132 KV	128	135	136	136	138	138	138
	iv. 66 KV	-	-	-	-	-	-	-
(2)	**Transmission Substations**							
	i. Number	15	17	17	17	18	20	21
	ii. Capacity (MVA)	3,240	3,251	3,251	3,251	3,491	3,811	4,166
(3)	**Performance**							
	a) System Minutes	N/A	26	37	2	21	8	14.5
	b) Number of Incidents of Trippings	53	30	34	21	9	3	9
	c) Unsupplied Energy (MWh)	N/A	225	517	17.5	269	103	289

		2000	2001	2002	2003	2004	2005	2006
F.	**Distribution System Capacity**							
(1)	**Distribution System Lines/Cables (km)**							
	i. Overhead Lines	13,958	14,525	15,208	16,072	16,790	16,470	17,002
	ii. Underground Cables	3,111	3,353	3,553	3,757	4,173	4,426	4,753
(2)	**Distribution Substations**							
	i. Number	5,256	5,532	5,554	6,249	6,893	7,508	7,588
	ii. Capacity (MVA)	3,596	3,855	3,933	4,200	4,668	5,329	5,295
(3)	**Performance**							
	Number of Interruption of Supply	N/A	6,004	4,167	6,590	4,244	4,489	7,409

		2000	2001	2002	2003	2004	2005	2006
G.	**Performance Highlights**							
(1)	**Maximum Demand (MW)**	554	574	604	643	685	743	773
(2)	**Total Units Generated (GWh)**	2,103	2,103	2,291	2,402	2,060	2,210	2,319
(3)	**Total Units Sold (GWh)**	2,874	3,067	3,248	3,471	3,678	3,942	4,045
(4)	**Sales of Electricity (RM million)**	759	812	864	927	977	1047	1,090
(5)	**Installed Generation Capacity (MW)**	551	559	557	560	545	546	547
(6)	**Total Number of Employees**	2,046	2,029	2,025	2,028	2,058	2,042	2,037
(7)	**Revenue Per Employee (RM/Employee)**	0.37	0.40	0.43	0.46	0.47	0.51	0.54
(8)	**Units Sold Per Employee (GWh/Employee)**	1.40	1.51	1.60	1.71	1.79	1.92	1.99
(9)	**Generation Capacity Per Employee (MW/Employee)**	0.27	0.28	0.28	0.28	0.26	0.27	0.27
(10)	**Total Units Purchased (GWh)**	1,245	1,451	1,506	1,657	1,840	2,400	2,537
(11)	**Total Units Exported (GWh)**	-	-	-	-	-	-	-
(12)	**Total Units Imported (GWh)**	-	-	-	-	-	-	-
(13)	Overall System Average Interruption Duration Index (SAIDI)(minutes/customer/year)	859	731	611	421	327	310	365

Note :

Years indicated are financial years

List of Independent Power Producers (IPPs)

Independent Power Producers (IPPs)

No	Licensee	Type of Plant	Licensed Capacity (MW)	Units Generated (GWh)	Units Sold (GWh)	Date of Issue of License
1.	**YTL Power Generation Sdn. Bhd.**					
	(a) Paka, Terengganu	2x404MW (Combined Cycle)	808	7,888	7,736	07-04-1993
	(b) Pasir Gudang, Johor	1x404MW (Combined Cycle)	404			
2.	**Genting Sanyen Power Sdn. Bhd. Kuala Langat, Selangor**	1x762MW (Combined Cycle)	762	5,944	5,826	01-07-1993
3.	**Segari Energy Ventures Sdn. Bhd. Lumut, Perak**	2x651.5MW (Combined Cycle)	1,303	4,796	4,703	15-07-1993
4.	**Powertek Bhd. Alor Gajah, Melaka**	4x110MW (Gas Turbines)	440	88	88	01-12-1993
5.	**Port Dickson Power Bhd. Tanjung Gemuk, Port Dickson**	4x110MW (Gas Turbines)	440	348	341	01-12-1993
6.	**ARL Tenaga Sdn. Bhd. Melawa, Sabah**	4x12.5MW (Diesel Engines)	50	104	97	14-06-1994
7.	**Musteq Hydro Sdn. Bhd. Sg. Kenerong, Kelantan**	2x10MW (Mini Hydro)	20	112	112	18-11-1994
8	**Serudong Power Sdn. Bhd. Tawau, Sabah**	3x12MW (Diesel Engines)	36	237	226	01-04-1995
9	**Stratavest Sdn. Bhd. Sandakan, Sabah**	4x16MW (Diesel Engines)	64	410	397	01-10-1996
10.	**Ranhill Powertron Sdn. Bhd. Karambunai, Sabah**	4x30MW (Gas Turbines)	120	893	888	13-06-2006
11.	**TNB Generation Sdn. Bhd.** **	4,041MW (Various types of thermal plants)	4,435	21,445	20,926	01-09-1997
12.	**Sandakan Power Corporation Sdn. Bhd. Sandakan, Sabah.**	4x8.5MW (Diesel Engines)	34	225	216	29-11-1997
13.	**TNB Janamanjung Sdn. Bhd.** **	3x700MW (Coal)	2,100	12,791	11,974	21-05-1998
14.	**Teknologi Tenaga Perlis Consortium Sdn. Bhd. Kuala Sungai Baru, Perlis.**	1x650MW (Combined Cycle)	650	5,642	5,545	26-08-1998
15.	**Nur Generation Sdn. Bhd. Kulim High-Tech Industrial Park, Kedah.**	2x110MW (Combined Cycle)	440	388	383	17-09-1998
16.	**Pahlawan Power Sdn. Bhd. Stesen Janakuasa Melaka, Tanjung Keling, Melaka.**	1x334MW (Combined Cycle)	334	2,522	2,493	26-05-1999
17.	**TNB Hidro Sdn. Bhd.** **	1,911MW (Hydro)	1,911	5,301	5,274	01-09-2000
18.	**Prai Power Sdn. Bhd. Daerah Seberang Perai Tengah, Pulau Pinang.**	1x350MW (Combined Cycle)	350	1,702	1,654	20-02-2001
19.	**GB3 Sdn. Bhd. Lumut, Perak.**	1x640MW (Combined Cycle)	640	4,502	4,420	07-08-2001
20.	**Panglima Power Sdn. Bhd. Alor Gajah, Melaka.**	1x720MW (Combined Cycle)	720	5,182	5,083	07-08-2001
21.	**Tanjung Bin Power Sdn. Bhd. Tanjung Bin, Mukim Serkat, Daerah Pontian, Johor.**	3x700MW (Coal)	2,100	1,075	996	26-09-2003
22.	**Kapar Energy Ventures Sdn. Bhd. Mukim Kapar, Daerah Klang, Selangor.**	2x300MW (Thermal) 2x300MW, 2x500MW (Coal) 2x110MW (Gas Turbines)	2,420	11,516	10,802	01-07-2004
23	**Sepangar Bay Corporation Sdn. Bhd. Kota Kinabalu Industrial Park, Kota Kinabalu, Sabah.**	1x100MW (Combined Cycle)	100	41	41	18-05-2006

Independent Power Producers (IPPs)

No	Licensee	Type of Plant	Licensed Capacity (MW)	Units Generated (GWh)	Units Sold (GWh)	Date of Issue of License
24.	**Jimah Energy Ventures Sdn. Bhd. Mukim Jimah, Port Dickson, Negeri Sembilan.**	2x700MW (Coal)	1,400	*	*	22-03-2005
25.	**Sejingkat Power Corporation Sdn. Bhd. Kuching, Sarawak. *** **	200MW (Coal)	200	618	N/A	N/A
26.	**Sarawak Power Generation Sdn. Bhd. Bintulu, Sarawak. *** **	2x110MW (Combined Cycle)	220	1,293	N/A	N/A

* **Under Construction**

** **Wholely Owned Subsidiaries of TNB**

*** **Wholely Owned Subsidiaries of SESCO**

List of Small Renewable Energy Power Producers (SREP)

Renewable Energy Power Producers

No	Licensee and Location	Type of Plant	Licensed Capacity (MW)	Energy Sources	Units Generated (GWh)	Units Sold (GWh)	Date of Issue of License
1.	**Bumibiopower Sdn. Bhd.** Pantai Remis, Perak.	Steam Turbines	6	Empty Fruit Bunch	*	*	13-10-2001
2.	**Jana Landfill Sdn. Bhd.** Air Hitam Sanitary Landfill, Seri Kembangan, Selangor.	Gas Turbines	2	Landfill Gas	4,104	4,104	13-10-2001
3.	**TSH Bio Energy Sdn. Bhd.** Km 65, Jalan Tawau-Kunak, Tawau, Sabah.	Steam Turbines	14	Waste from Palm Oil	66,552	49,563	14-10-2003
4.	**Potensi Gaya Sdn. Bhd.** Sungai Burong Palm Oil Mill, Km 44, Tawau-Lahad Datu Highway, Tawau, Sabah.	Steam Turbines	7	Empty Fruit Bunch	*	*	14-10-2003
5.	**Alaf Ekspresi Sdn. Bhd.** Apas Balung Mill, Tawau-Lahad Datu Highway, Km 35, Locked Bag 28, Borneo Samudra, 91009 Tawau, Sabah.	Steam Turbines	8	Waste from Palm Oil	*	*	14-10-2003
6.	**Naluri Ventures Sdn. Bhd.** PLO 808, Jalan Keluli 11, Kaw Perindustrian Pasir Gudang, Mukim Plentong, Daerah Johor Bahru, 81700 Pasir Gudang, Johor.	Steam Turbines	12	Waste from Palm Oil	*	*	17-03-2005

*** Not Operated Yet**

List of Electricity Distributors

List of Electricity Distributors

No.	Licensee and Contact Address	Area of Supply	Licensed Capacity (MW)	Date of Issue of License
1.	**Syarikat Elektrik Pulau Ketam** 62-K, Jalan Dua, Pulau Ketam, 42490 Port Klang, Selangor.	Bagan Teo Chew, Pulau Ketam, Selangor.	1.2 ⊗	30-10-1985 (Tamat pada 29/10/2006)
2.	**Sabah Forest Industries Sdn. Bhd.** No. 10, Jalan Jeti, Kompleks SFI, WDT 31, 89859 Sipitang, Sabah.	Sabah Forest Industries Complex, Sabah.	57.7 *	12-05-1993
3.	**Kuantan Port Consortium Sdn. Bhd.** Wisma KPC, KM. 25, Tanjung Gelang, Peti Surat 199, 25720 Kuantan, Pahang.	Kuantan Port Authority Area, Pahang.	4.9	10-06-1994
4.	**MTBE Malaysia Sdn. Bhd.** Lot 111, Kawasan Perindustrial Gebeng, Peti Surat 1, Balok, 26080 Kuantan, Pahang.	Supply to Polypropylene Malaysia Sdn. Bhd. Gebeng Industrial Estate, Pahang.	5.6	15-06-1995
5.	**Intergrated Rubber Corporation Berhad** Lot 514, 681, 1559 dan 1562, Mukim Batang Berjuntai, Selangor.	Tin Mine Area	2.48	12-10-2005 (Tamat pada 12/10/2006)
6.	**Sunway Pyramid Sdn. Bhd.** Lot LL1.10 Sunway Pyramid, No. 3, Jalan PJS 11/15, Bandar Sunway, 46150 Petaling Jaya, Selangor.	Sunway Pyramid Shopping Complex, Selangor.	15 @	1-11-1995
7.	**Gas District Cooling (KLIA) Sdn. Bhd.** Jalan KLIA S5(KLIA Sepang) Southern Support Zone, 64000 KLIA, Sepang, Selangor.	KLIA, Sepang, Selangor.	60.0 *	3-01-1996
8.	**Ranhill Power Distribution Sdn. Bhd.** 32nd Floor, Empire Tower, No. 182, Jalan Tun Razak, 50400 Kuala Lumpur.	Putra LRT Corridor, Kuala Lumpur.	100.0	27-03-1996
9.	**Profound Heritage Sdn. Bhd.** 1st Floor, Lorong Grace Square, Jalan Pantai Sembulan, 88100 Kota Kinabalu, Sabah.	Sutera Harbour Resort, Kota Kinabalu, Sabah.	38.0 *	1-10-2006
10.	**Wirazone Sdn. Bhd.** Level 13A, Block 3B, Plaza Sentral, Jalan Stesen Sentral 5, 50470 Kuala Lumpur.	KL Sentral Development Area, Brickfield, Kuala Lumpur.	100	15-10-2006
11.	**Bandar Utama City Corporation Sdn. Bhd.** 1, Persiaran Bandar Utama, Bandar Utama, 47800 Petaling Jaya, Selangor.	Kawasan Pembangunan Bandar Utama Township, Petaling Jaya.	100	1-03-1997
12.	**Petronas Methanol (Labuan) Sdn. Bhd.** Kawasan Perindustrian Rancha Rancha, P.O. Box 80079, 87010 W.P. Labuan, Sabah.	Kompleks Petronas Methanol (Labuan) Kawasan Perindustrian Ranca-Ranca Bersebelahan Stesen Janakuasa SESB Patau-Patau, Sabah.	12.8 *	30-04-1997
13.	**Kelang Port Authority** Beg Berkunci 202, Jalan Pelabuhan Utara, 42005 Pelabuhan Klang, Selangor.	Klang Port Authority Area, Port Klang, Selangor.	5.8	25-03-1997
14.	**Jaya Jusco Stores Bhd. - (Daerah Kinta, Perak)** 4th & 5th Floor,Menara Kaushar, Jalan 3/27A, Seksyen 1, Bandar Baru Wangsa Maju, 53300 Kuala Lumpur.	Jaya Jusco Shopping Complex, Ipoh, Perak.	2.0	1-08-1997
15.	**Pengkalan Bekalan Kemaman Sdn. Bhd.** Peti Surat 64, 24007 Kemaman, Terengganu.	Pengkalan Bekalan Kemaman Area, Terengganu.	0.35	3-12-1997
16.	**See Sen Chemical Bhd.** PT 3940, Kawasan Perindustrian Teluk Kalong, 24000 Kemaman, Terengganu.	Kawasan Perindustrian Telok Kalung, Kemaman, Terengganu.	6.0 *	3-12-1997
17.	**Cryovac (M) Sdn. Bhd.** Lot 115, Gebeng Industrial Estate, Peti Surat 30, Balok, 26080 Kuantan, Pahang.	Gebeng Industrial Estates, Pahang.	3.5	4-02-1998
18.	**Malaysia Airports (Sepang) Sdn. Bhd.** 3rd & 4th Floor, Airport Management Centre, KL International Airport, 64000 KLIA, Selangor.	KLIA, Sepang, Selangor.	46.0	14-02-1998
19.	**Petronas Gas Bhd.** Centralized Utility Facilities(CUF), Integrated Petrochemical Complex, KM 105, Jalan Kuantan/Kuala Terengganu, 24300 Kertih, Kemaman, Terengganu.	Integrated Petrochemical Complex, Kerteh Industrial Area, Terengganu.	210.0 *	28-05-1998

List of Electricity Distributors

No.	Licensee and Contact Address	Area of Supply	Licensed Capacity (MW)	Date of Issue of License
20.	**Petronas Gas Bhd.** Centralized Utility Facilities(CUF), Integrated Petrochemical Complex, Lot 139A, Gebeng Industrial Area Phase III, 26080 Kuantan, Pahang.	Integrated Petrochemical Complex, Gebeng Industrial Area, Kuantan, Pahang.	105.0 *	28-05-1998
21.	**K.K.I.P. Power Sdn. Bhd.** No. G21 & G22, KKIP Amenity Centre, Lot 11B, Export Oriented Industrial Zone Phase 1, Kota Kinabalu Industrial Park, Jalan Sepangar, Menggatal, 88450 Kota Kinabalu, Sabah.	Kota Kinabalu Industrial Park, Sabah.	20.0 - 210.0	15-06-1998
22.	**Nur Distribution Sdn. Bhd.** Receivers and Managers Appointed, Central Control Building(CCB), Lot 30, Jalan Hi-Tech 4, Kulim Hi-Tech Park, 09000 Kulim, Kedah.	Kulim Hi-Tech Park, Kedah.	440.0	17-09-1998
23.	**C3 Power Sdn. Bhd.** Block F, Lot 51, Ground Floor, Jati Commercial Centre, P.O. Box 80737, 87017 F.T. Labuan, Sabah.	Temporary Settlement in some areas in Labuan, Sandakan and Semporna.	5.85	13-07-1999
24.	**Shell Refining Company (FOM) Berhad Sdn. Bhd.** Batu 1, Jalan Pantai, 71000 Port Dickson, Negeri Sembilan.	Integrated Petrochemical Complex, Port Dickson, Negeri Sembilan.	35.0 *	10-08-1999
25.	**Gas District Cooling (KLCC) Sdn. Bhd.** KLCC Property Holding Berhad, Level 36,Tower 2 Petronas Twin Tower, Kuala Lumpur City Centre, 50088 Kuala Lumpur.	KLCC DCS/Co Generation Plant, Persiaran KLCC, Jalan Ampang, Kuala Lumpur.	40.0 *	30-08-2000
26.	**Jaya Jusco Stores Sdn. Bhd.** Taman Maluri Cheras, 55100 Cheras, Kuala Lumpur.	Taman Jaya Maluri, Cheras, Kuala Lumpur.	3.4	2-10-2000
27.	**Genting Utilities & Services Sdn. Bhd.** Tingkat 24, Wisma Genting, Jalan Sultan Ismail, 50250 Kuala Lumpur.	Genting Highlands Area, Pahang.	48.0	17-10-2000
28.	**Intitute of Technology Petronas Sdn. Bhd.** Level 46, Tower 1, Petronas Twin Towers, Kuala Lumpur City Centre, 50088 Kuala Lumpur.	Kampus University Technology Petronas, Bandar Sri Iskandar, Tronoh, Perak.	8.4 *	10-03-2001
29.	**TCL Industries (M) Sdn. Bhd.** Plot No: 4248, Teluk Kalong Industrial Estate, 24007 Kemaman, Terengganu.	Teluk Kalung Industrial Estate, Kemaman, Terengganu.	7.0 *	15-09-2003
30.	**Ikano Corporation Sdn. Bhd.** No. 2, Jalan PJU 7/2, Mutiara Damansara, 47800 Petaling Jaya, Selangor.	Mutiara Damansara, Selangor.	7.9	23-12-2003
31.	**Jaya Jusco Stores Sdn. Bhd.** **Mukim Pulai, Johor** No. 4, Jalan Pendidikan, Taman Universiti, 81300 Skudai, Johor.	Jaya Jusco Shopping Complex, Mukim Pulai, Johor.	3.1	28-02-2004
32.	**Makmuran Sdn. Bhd.** Mile 2 1/2, Jalan Ulu Patikang, 89008 Keningau, Sabah.	Supply to Veracity Corporation Sdn. Bhd . (for wood processing activities)	1.8 *	27-03-2004
33.	**Eng Lian Enterprise Sdn. Bhd.** 9, Jalan Ampang #05-00, 50450 Kuala Lumpur.	Bangsar Village I	2.291	01-03-2006
34.	**Aeon Co. (M) Sdn. Bhd.** Jalan Metro Prima, Kuala Lumpur.	Aeon Metro Prima Shopping Centre	4.828	15-3-2006
35.	**Fawanis Sdn. Bhd.** 13th Floor, Wisma Denmark, 86, Jalan Ampang, 50450 Kuala Lumpur.	Queen's Park Retail Centre	0.937	11-5-2006
36.	**Asian Supply Base Sdn. Bhd.** Ranca-Ranca Industrial Estate, 87017 Labuan, Sabah.	Asian Supply Base	7.5	13-11-2006
37.	**ASM Properties Sdn. Bhd.** Tingkat 5, Maju Junction Mall, Jalan Tuanku Abdul Rahman, 50250 Kuala Lumpur.	Maju Junction Mall	10.8	24-11-2006
38.	**Sunway Carnival Sdn. Bhd.** No.1 Persiaran Mahsuri 1/3, Sunway Tunas, 11900 Bayan Lepas, Pulau Pinang.	Kompleks Belibelah Sunway	5	1-11-2006

List of Electricity Distributors

No.	Licensee and Contact Address	Area of Supply	Licensed Capacity (MW)	Date of Issue of License
39.	**Evergreen Intermerge Sdn. Bhd .** Teck Guab Regency, 318, Jalan St Patrick , off Jalan Belunu, 41007 Tawau, Sabah.	Tanjung Batu Laut, Tawau, Sabah.	6 ⊗	10-10-2006
40.	**Seo Energy Sdn. Bhd.** KM 8, Jalan Batu sapi, Karamunting, Sandakan, Sabah.	Sandakan Edible Oil Sdn. Bhd.	1.2 ⊗	10-10-2006
41.	**Lembaga Tabung Haji** Lot 101, Mukim Kuala Lumpur, Kuala Lumpur.	Menara TH Perdana	3.0	29-12-2006
42.	**Bio Fuel Asia Sdn. Bhd.** Suite 702, Jalan E, Phileo Damansara 1, No.9 Jalan 16/11 off Jalan Damansara, 46350 Petaling Jaya.	TSH Edible Oil Sdn. Bhd. Kunak, Lahad Datu, Sabah.	10.0	29-12-2006

Notes :

\# Project Development Not Commenced Yet

* Generates Electricity by Co-Generation

@ Co-Generation Plant Not Operationed Yet

⊗ Generates Electricity

List of Major Co-Generators

List of Major Co-Generators

No.	Licensee and Location	Capacity (MW)	Type of License	Fuels	Generation (MWh)
1.	**Sabah Forest Industries Sdn. Bhd.** W.D.T. 31, 89859 Sipitang, Sabah.	57.7	Public	Wood/Diesel	272,849
2.	**Perwaja Steel Sdn. Bhd.** Tanjung Berhala, Kemaman, Terengganu.	9.5	Private	Waste Heat From Industrial Process	34,533
3.	**Bernas Production Sdn. Bhd.** Sekinchan, Selangor.	0.225	Private	Agriculture Waste	N/A
4.	**Lembaga Padi Dan Beras Negara,** Sg. Ranggam (Ulu Dedap), Kg. Gajah, Perak.	0.65	Private	Agriculture Waste	1147.9
5.	**Padiberas Nasional Bhd.** Changkat Lada, Kg. Gajah, Perak.	0.65	Private	Agriculture Waste	544
6.	**Consolidated Plantations Bhd.** Tennamaran Palm Oil Mill, Batang Berjuntai, Selangor.	3.38	Private	Agriculture Waste	3,117
7.	**Consolidated Plantations Bhd.** Nova Scotia Palm Oil Mill, Batu 5, Jalan Maharaja Lela, Teluk Intan, Perak.	3.42	Private	Agriculture Waste	6,132
8.	**Gas District Cooling (KLCC) Sdn. Bhd.** Bangunan DCC 1/DCC 2, KLCC DCS/Cogeneration Plant, Persiaran KLCC, Jalan Ampang, Kuala Lumpur.	40.0	Public	Natural Gas	86,490
9.	**Gas District Cooling (KLIA) Sdn. Bhd.** Kuala Lumpur International Airport, Sepang, Selangor.	60.0	Public	Natural Gas	264,258
10.	**See Sen Chemical Bhd.** Kawasan Perindustrian Telok Kalong, Kemaman, Terengganu.	6.0	Public	Waste Heat From Industrial Process	29,991
11.	**Tractors Malaysia (1982) Sdn. Bhd.** Kampung Puchong, Daerah Petaling, Selangor.	1.25	Private	Natural Gas	2,425
12.	**Profound Heritage Sdn. Bhd.** Sutera Harbour Resort, Kota Kinabalu, Sabah.	38.0	Public	Diesel/Natural Gas	124,409
13.	**TCL Industries (M) Sdn. Bhd.** Teluk Kalong Industrial Estate, Kemaman, Terengganu.	7.0	Public	Waste Heat From Industrial Process	4,514
14.	**Malaysian Mosaics Bhd.** Batu 3, Mukim Kluang, Jalan Batu Pahat, Kluang, Johor.	4.21	Private	Natural Gas	19,443
15.	**Malaysian Newsprint Industries Sdn. Bhd.** Lot 3771, Jalan Lencongan Mentakab-Temerloh, Temerloh Industrial Park, Mentakab, Pahang.	79.2	Private	Oil	225,802
16.	**Titan Petrochemicals (M) Sdn. Bhd.** Plo 312, Jalan Tembaga 4, Pasir Gudang Industrial Estate, Pasir Gudang, Johor.	56.0	Private	Waste Gas from Industrial Process	309,977
17.	**Titan Petrochemicals (M) Sdn. Bhd.** PLO 8, Tanjung Langsat Industrial Park, Mukim Sg. Tiram, Johor Bharu, Johor.	42.6	Private	Natural Gas	189,828
18.	**Shell Refining Company (FOM) Bhd.** Batu 1, Jalan Pantai, Port Dickson, Negeri Sembilan.	35.0	Public	Waste Gas from Industrial Process	130,898
19.	**Bandar Utama City Corp. Sdn. Bhd.** Kawasan Pembangunan Bandar Utama Township, Petaling Jaya, Selangor.	50.0	Public	Natural Gas	Not In Operation
20.	**Wirazone Sdn. Bhd.** Kuala Lumpur Sentral Development, Brickfields, Kuala Lumpur.	12.0	Public	Natural Gas	Not In Operation

List of Major Co-Generators

No.	Licensee and Location	Capacity (MW)	Type of License	Fuels	Generation (MWh)
21.	**CCM Chemicals Sdn. Bhd.** Pasir Gudang Works, Plot 411, Kaw. 4, Jalan Perak Satu, Pasir Gudang, Johor.	15.0	Private	Natural Gas	Not In Operation
22.	**Amoco Chemical (Malaysia) Sdn. Bhd.** Lot 116, Gebeng Industrial Estate, Balok, Kuantan, Pahang.	21.6	Private	Natural Gas	Not In Operation
23.	**Petronas Methanol (Labuan) Sdn. Bhd.** Kompleks Petronas Methanol (Labuan), Kawasan Perindustrian Ranca-Ranca, Bersebelahan Stesen Janakuasa SESB, Patau-Patau, Sabah.	12.8	Public	Natural Gas	63,369
24.	**Petronas Gas Bhd.** Intergrated Petrochemical Complex, Kerteh Industrial Area, Terengganu.	210.0	Public	Natural Gas	1,234,253
25.	**Petronas Gas Bhd.** Intergrated Petrochemical Complex, Gebeng Industrial Area, Kuantan, Pahang.	105.0	Public	Natural Gas	604,174
26.	**Tian Siang Oil Mill (Perak) Sdn. Bhd.** Lot 2161, Batu 21, Jalan Beruas, Padang Gajah, Beruas, Perak.	1.8	Private	Agriculture Waste	N/A
27.	**Central Sugars Refinery Sdn. Bhd.** Batu Tiga, Shah Alam, Selangor.	9.2	Private	Diesel/MFO	35,047
28.	**BASF Petronas Chemicals Sdn. Bhd.** Lot 139, Kawasan Perindustrian Gebeng, Kuantan, Pahang.	27.4	Private	Natural Gas	85,501
29.	**Intitute of Technology Petronas Sdn. Bhd.** Kampus Universiti Teknologi Petronas, Bandar Sri iskandar, Tronoh, Perak.	8.4	Public	Natural Gas	34,218
30.	**Penfibre Sdn. Bhd.** Lot 109-114, Kawasan Perindustrian Bebas, Prai Zon 1, Prai, Pulau Pinang.	35.4	Private	Natural Gas	Not In Operation
31.	**Nibong Tebal Paper Mill Sdn. Bhd.** 886, Jalan Bandar Baru, Sg. Kecil, Nibong, Pulau Pinang.	0.8	Private	Wood Dust	1.7
32.	**Gas District Cooling (Putrajaya) Sdn. Bhd.** Plot 2U1, Putrajaya Precint 2, Wilayah Persekutuan, Putrajaya.	10.74	Private	Natural Gas	21,429
33.	**Makmuran Sdn. Bhd.** Batu 2 1/2, Jalan Ulu Patikang, Keningau, Sabah.	1.8	Public	Wood Waste	6,206
34.	**Petronas Penapisan (Melaka) Sdn. Bhd.** Kompleks Petronas Penapisan Melaka, Mukim Sungai Udang, Melaka.	120	Private	Natural Gas	Not In Operation
35.	**Seo Energy Sdn. Bhd.** KM 8,Jalan Batu Sapi, Karamunting, Sabah.	1.2	Public	EFB	313
36.	**Bio Fuel Asia Sdn. Bhd.** TSH Edible Oil S/B, PL26166110 & 246290228, Kunak, Lahad Datu, Sabah.	10.0	Public	Wood Waste	N/A
37.	**Evergreen Intermerge Sdn. Bhd.** Tanjung Batu Laut, Tawau, Sabah.	6	Public	Natural Gas	Not In Operation
38.	**Gas District Cooling (Putrajaya) Sdn. Bhd.** Plot 12371, Precint 1, WP Putrajaya, Lebuh Perdana Timur, Pusat Pentadbiran Kerajaan Persekutuan, Putrajaya.	6.5	Private	Natural Gas	6,366

List of Major Co-Generators

No.	Licensee and Location	Capacity (MW)	Type of License	Fuels	Generation (MWh)
39.	**Felda Palm Industries Sdn. Bhd.** Kompleks Sahabat, Lahad Datu,Sabah.	7.5	Private	EFB	2,553
40.	**Ban Heng Bee Rice Mill (1952) Sdn. Bhd.** Lot 2171,Jalan Bukit Raya, Mukim Bukit Raya Pendang, Kedah.	0.5	Private	Agriculture Waste	609
41.	**Palm Energy Sdn. Bhd.** Lahad Datu, Sabah.	6.5	Private	Agriculture Waste	10,507
42.	**Muda Paper Mills Sdn. Bhd.** Lot 11207, Mukim Kajang, Daerah Hulu Langat, Selangor.	6.5	Private	Natural Gas	Not In Operation

Notes

1. **a) Total capacity of major projects licensed**

- Public	660.9 MW
- Private	470.5 MW
Total	1,131.4 MW

b) Total capacity of major projects Planned

- Public	68.0 MW
- Private	198.5 MW
Total	266.5 MW

c) Total capacity of major projects in Operation

- Public	594.2 MW
- Private	270.8 MW
Total	865.0 MW

2. a) Public Licence - The licensee generates for his own use and for supply to other persons.
b) Private Licence - The licensee generates for his own use only.

Statistics of Self-Generation

Statistics of Self-Generation

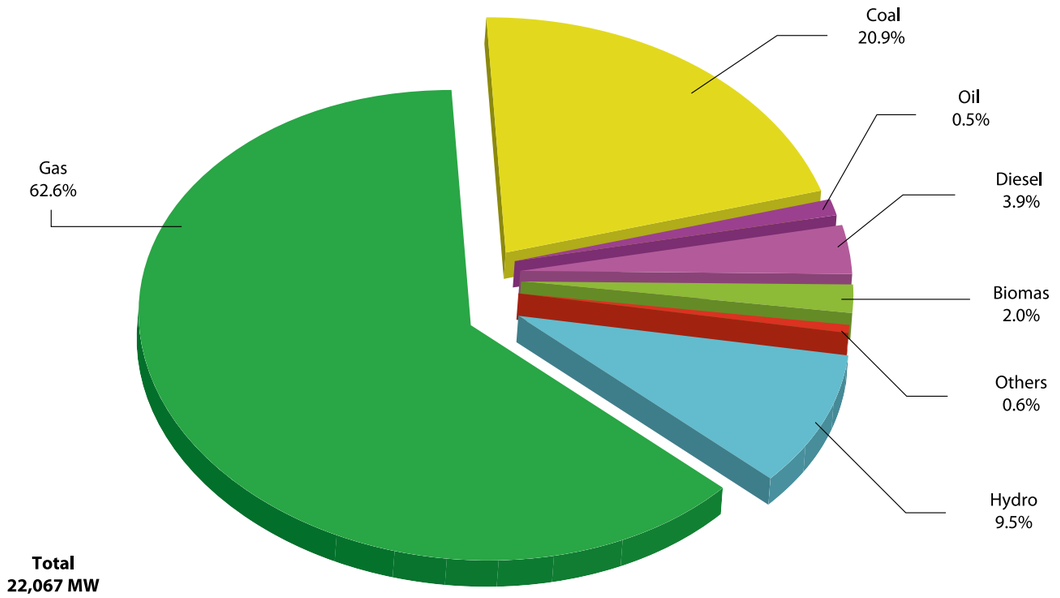
No. Self-Generation Licenses	Generation Plant Mix (MW)				
	Gas	Diesel	Biomass	Others	Total
1,216	93	310	372	77	852

Other Important Statistics and Information of the Electricity Supply Industry

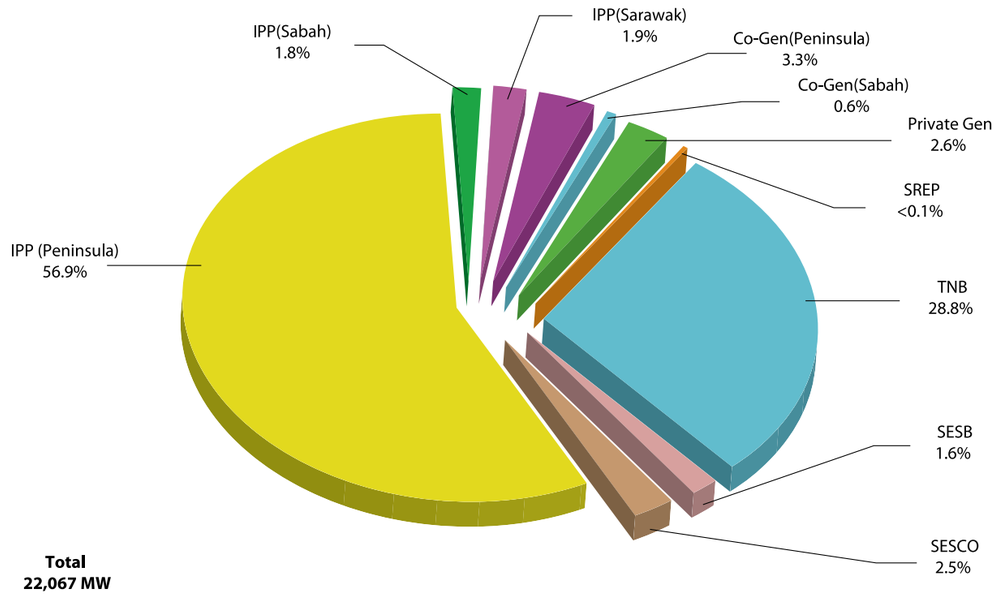
Statistics of Approved Projects According to Energy Sources

No.	Energy Sources		Application Approved	Generation Capacity (MW)	Grid Connected Capacity (MW)	Percentage Connected to Grid (%)
1.	Biomass	Empty Fruit Bunch	16	111.2	111.2	44.1
		Wood Chips	1	6.6	6.6	2.6
		Rice Husk	1	10.0	10.0	4.0
		Municipal Solid Waste	4	25.0	25.0	9.9
2.	Landfill Gas		3	9.0	6.0	2.4
3.	Mini Hydro		23	93.2	93.2	37
4.	Wind & Solar		0	0.0	0.0	0.0
Total			**48**	**252**	**252**	**100%**

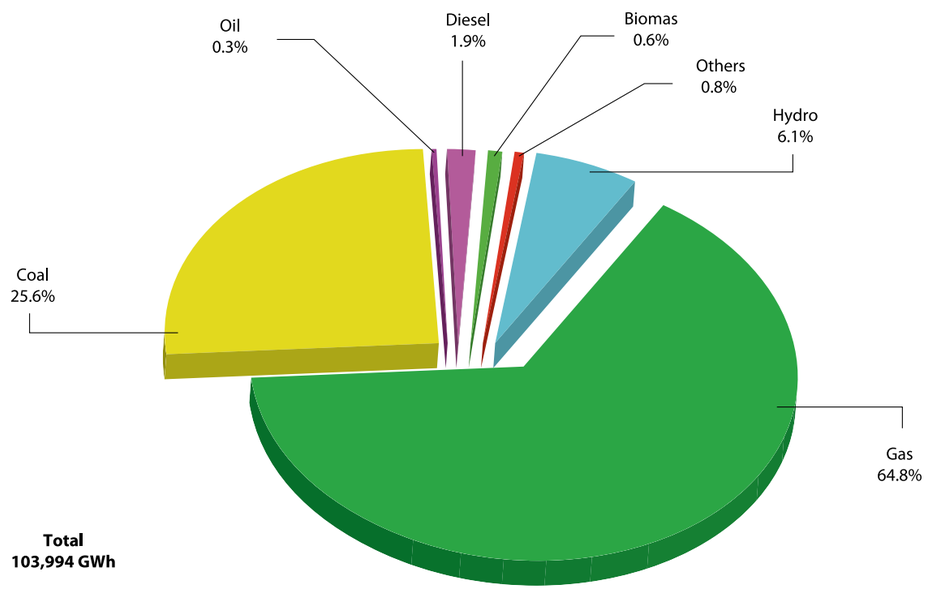
Generation Plant Mix in Malaysia



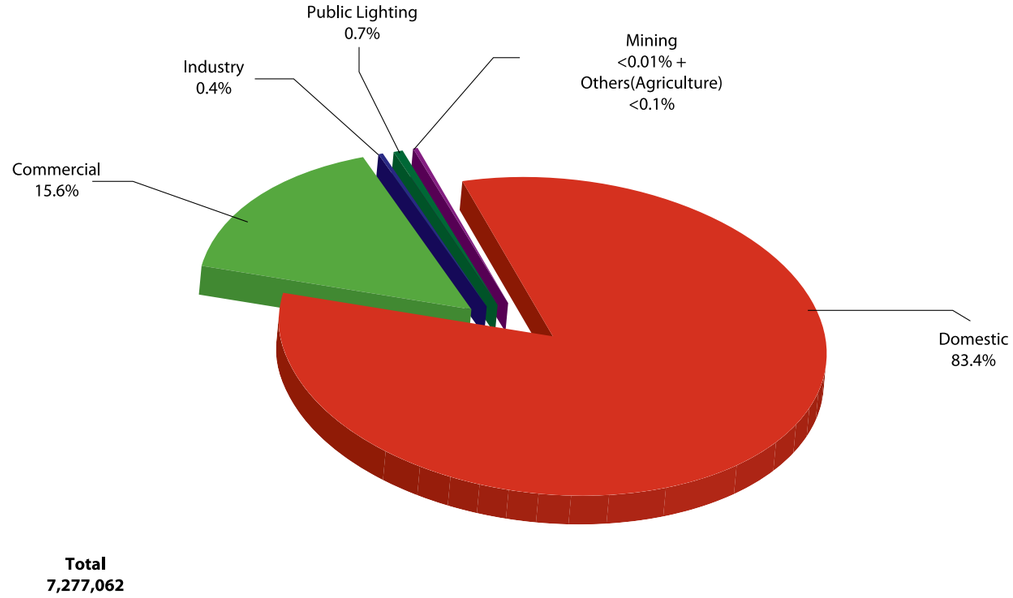
Generation Capacity of Major Power Producers in Malaysia



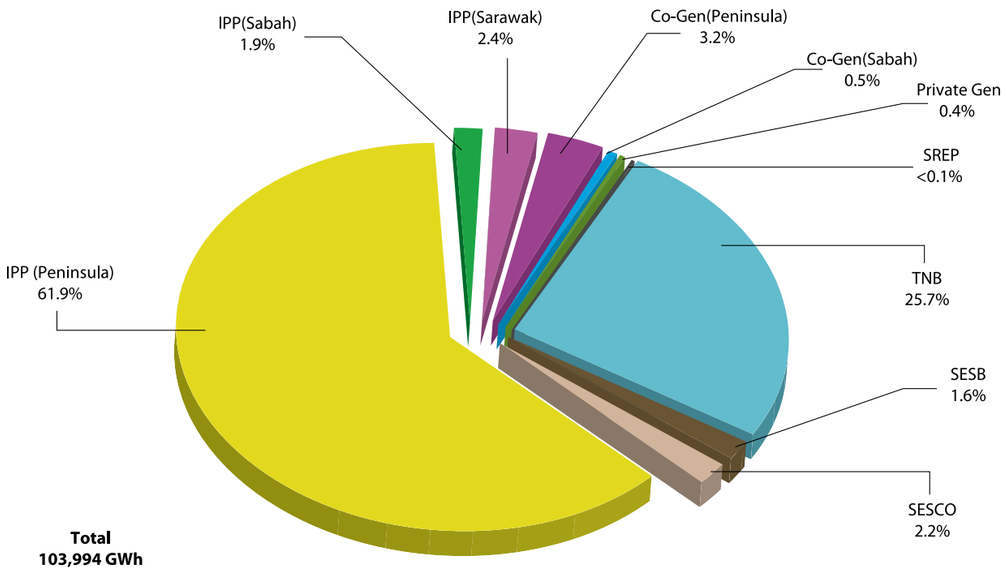
Generation Mix in Malaysia



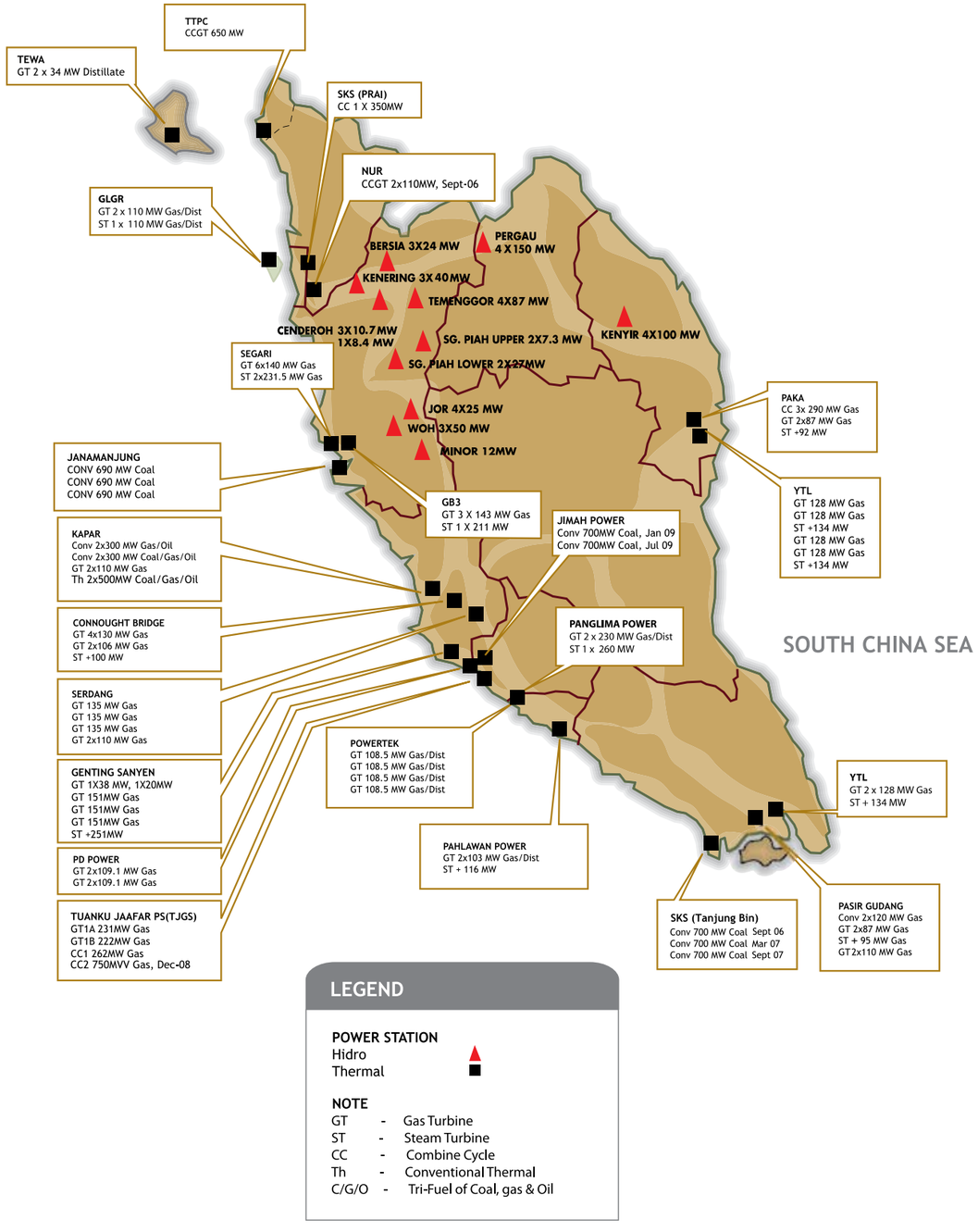
Electricity Consumer of TNB, SESB and Syarikat SESCO Berhad According to Sectors



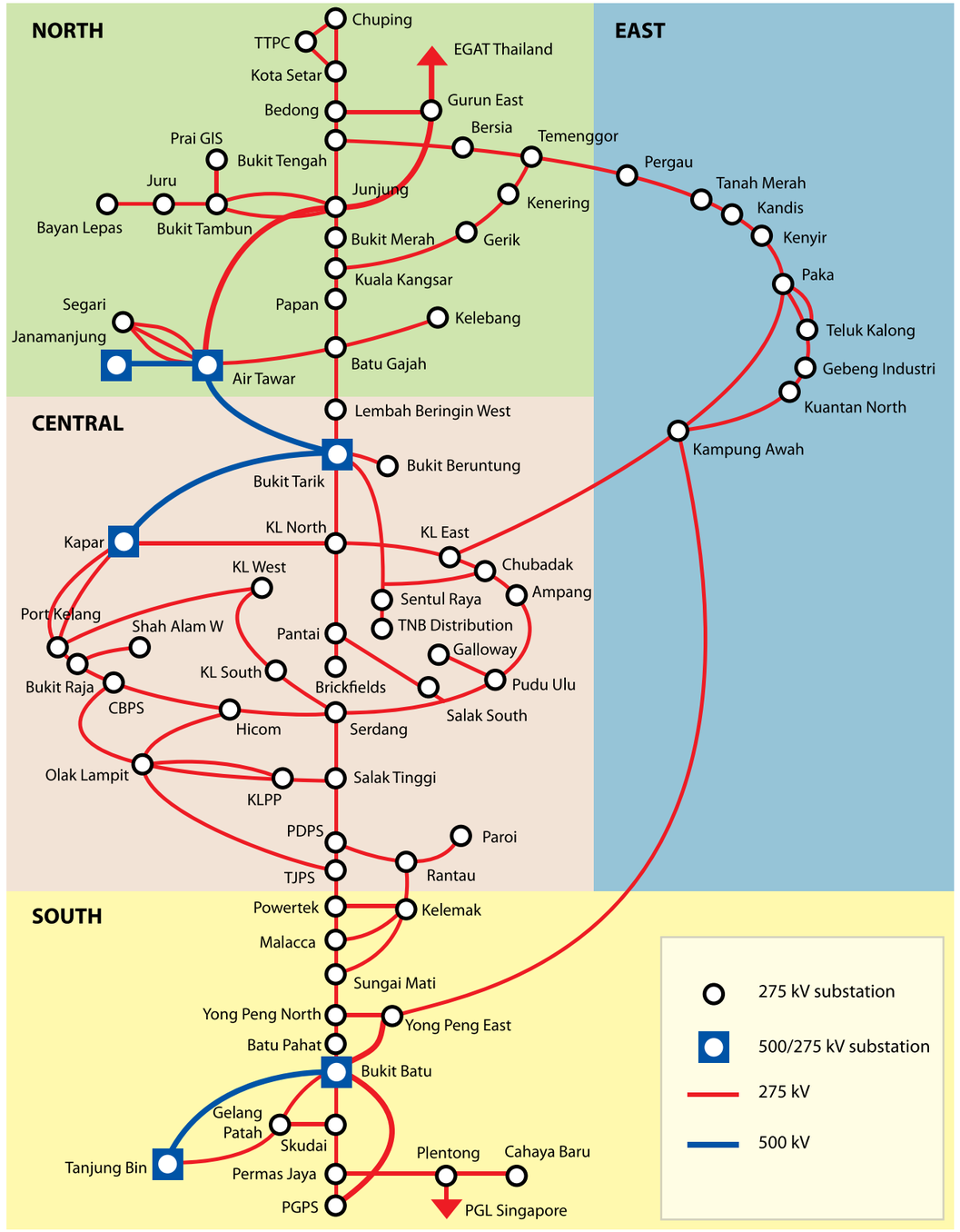
Generation by Major Power Producers in Malaysia



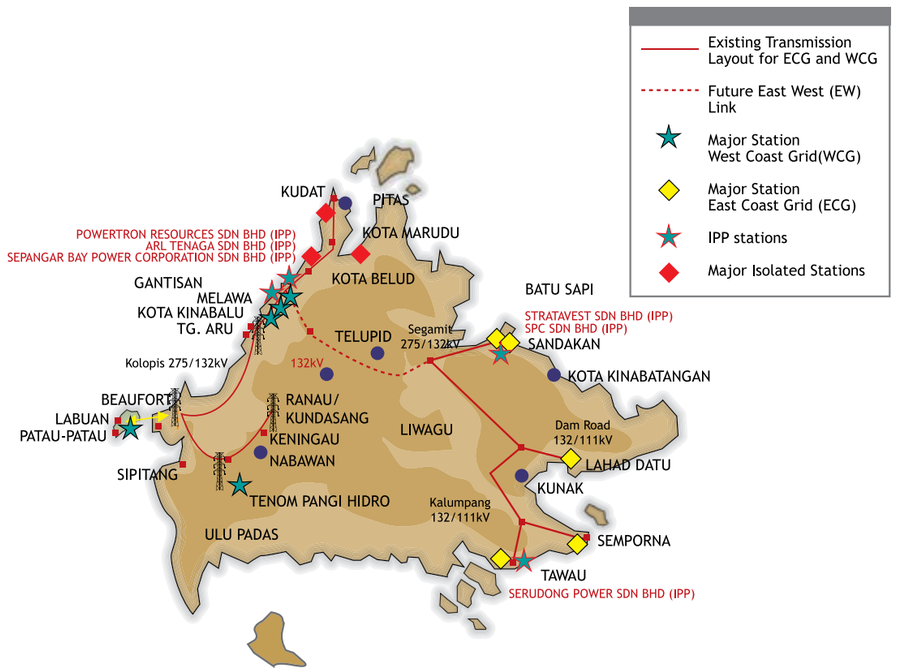
Generation Stations in Peninsular Malaysia



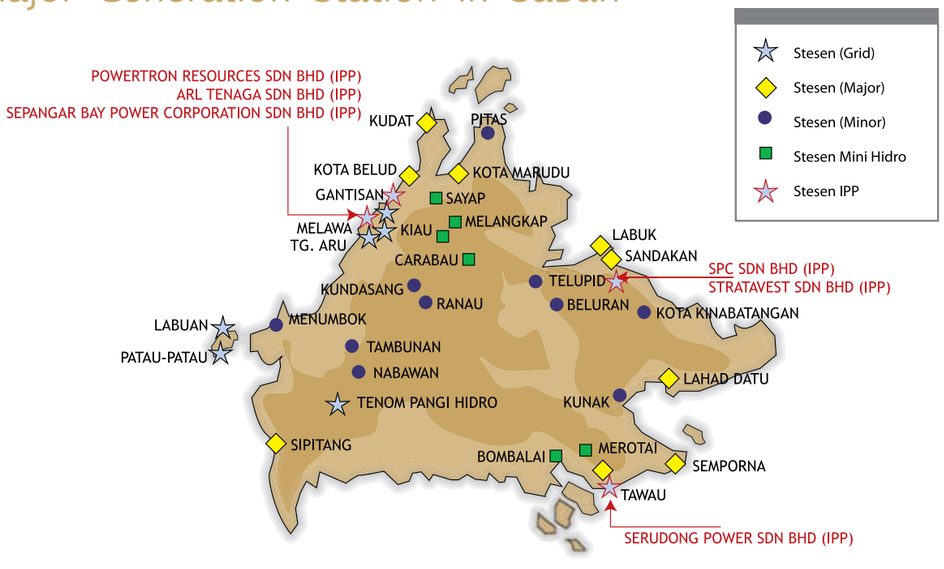
TNB Grid System 2006



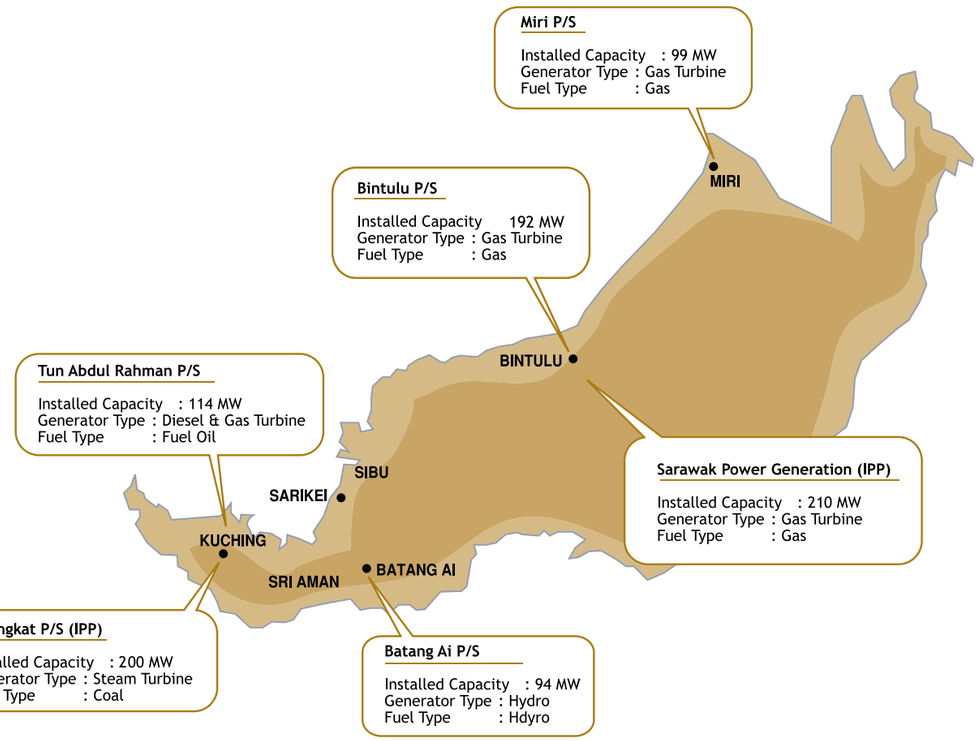
System Grid in Sabah



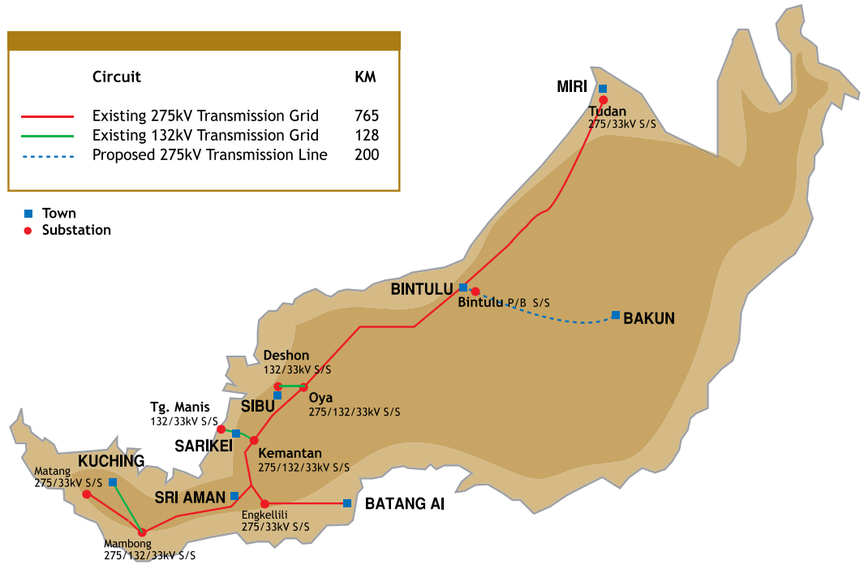
Major Generation Station in Sabah



Major Generation Stations in Sarawak



Grid System in Sarawak



Key Contacts

Key Contacts
Government Ministries and Departments

MINISTRY OF ENERGY, WATER AND COMMUNICATIONS
Blok E415, Government Complex Parcel E
Federal Government Administrative Centre
62668 Putrajaya
Tel : 03 8883 6000
Fax : 03 8889 3712

MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY
Block 10, Government Offices Complex
Jalan Duta
50622 Kuala Lumpur
Tel : 03-6203 3022
Fax : 03-6203 2337

MINISTRY OF FINANCE
Ministry of Finance Complex, Precint 2
Federal Government Administrative Centre
62592 Putrajaya
Tel : 03-8882 3000
Fax : 03-8882 3893 / 3894

MINISTRY OF PLANTATION INDUSTRIES AND COMMODITIES
No. 15, 6-13 th Floor
Persiaran Perdana, Presint 2
Federal Government Administrative Centre
62654 Putrajaya
Tel : 03-8880 3300
Fax : 03-8880 3445

MINISTRY OF ENTREPRENEURIAL AND COOPERATIVE DEVELOPMENT
22-26th Floor, Bangunan Medan Mara
Jalan Raja Laut
50652 Kuala Lumpur
Tel : 03-2698 5022
Fax : 03-2691 7623

ENERGY COMMISSION
Level 13, Menara TH Perdana
Maju Junction, 1001, Jalan Sultan Ismail
50250 Kuala Lumpur
Tel : 03-2612 5400
Fax : 03-2691 4584

MALAYSIAN INDUSTRIAL DEVELOPMENT AUTHORITY
Level 4, Plaza Sentral
Jalan Stesen Sentral 5
Kuala Lumpur Sentral
50470 Kuala Lumpur
Tel : 03-2267 3633
Fax : 03-2274 7970

ECONOMIC PLANNING UNIT
Prime Minister's Department
Block B5 & B6
Federal Government Administrative Centre
62514 Putrajaya
Tel : 03-8888 3333
Fax : 03-8888 3755

STATISTICS DEPARTMENT
Aras 8, Block C6
Parcel C, Federal Government Administrative Centre
62514 Putrajaya
Tel : 03-8885 7000
Fax : 03-8888 9250

MALAYSIA EXTERNAL TRADE DEVELOPMENT CORPORATION
Menara MARTARDE
Jalan Khidmat Usaha
Off Jalan Duta
50480 Kuala Lumpur
Tel : 03-6207 7077
Fax : 03-6203 7037 / 7033

Key Contacts
Utilities and Major Power Producers

TENAGA NASIONAL BERHAD
No. 129, Jalan Bangsar
Peti Surat 11003
50730 Kuala Lumpur
Tel : 03-2282 5566/2296 5566
Fax : 03-2282 6754

TNB GENERATION SDN. BHD.
Bahagian Penjanaan TNB
Tingkat 4 hingga 8, Bangunan Penjanaan
No. 129, Jalan Bangsar
59200 Kuala Lumpur
Tel : 03-2284 0680/2284 0711
Fax : 03-2282 1073

POWERTEK BERHAD
Level 43, Menara MAXIS
Kuala Lumpur City Centre
50088 Kuala Lumpur
Tel : 03-2381 6666
Fax : 03-2381 6677

GENTING SANYEN POWER SDN. BHD.
22nd Floor, Wisma Genting
Jalan Sultan Ismail
50250 Kuala Lumpur
Tel : 03-2333 2211
Fax : 03-2162 4032

ARL POWER SDN. BHD.
Mezzanine Floor, Wisma Ali Bawal 2
No. 11, Jalan Tandang
46050 Petaling Jaya
Selangor
Tel : 03-7784 0476
Fax : 03-7783 8485

SYARIKAT SESCO BERHAD
Wisma SESCO, Petra Jaya
93673 Kuching
Sarawak
Tel : 082-441 188
Fax : 082-448 322

SABAH ELECTRICITY SDN. BHD.
Wisma SESB
Jalan Tuanku Abdul Rahman
88673 Kota Kinabalu
Sabah
Tel : 088-282 699
Fax : 088-223 320

PORT DICKSON POWER BHD.
Batu 2, Jalan Seremban
71000 Seremban
Negeri sembilan
Tel : 06-651 4100
Fax : 06-651 4236

YTL POWER GENERATION SDN. BHD.
8th Floor, Menara ING
84, Jalan Raja Chulan
50200 Kuala Lumpur
Tel : 03-2732 0551
Fax : 03-2732 0560

SEGARI ENERGY VENTURES SDN. BHD.
Level 12, Block 3B
Plaza Sentral
Jalan Stesen Sentral 5
50470 Kuala Lumpur
Tel : 03-2263 3388
Fax : 03-2263 3322

Key Contacts
Utilities and Major Power Producers

MUSTEQ HYDRO SDN. BHD.
15th Amcorp Tower
No 18, Jalan Persiaran Barat
46050 Petaling Jaya
Selangor
Tel : 03-7957 7781
Fax : 03-7957 4793

SERUDONG POWER SDN. BHD.
Lot 8-05, Level 8, Menara Milenium
8, Jalan Damanlela
Damansara Heights
50490 Kuala Lumpur
Tel : 03-2093 8818
Fax : 03-2093 7818

RANHILL POWERTRON SDN. BHD.
32nd Floor, Empire Tower
No 182, Jalan Tun Razak
50400 Kuala Lumpur
Tel : 03-2171 2020
Fax : 03-2171 1149

STRATAVEST SDN. BHD.
15th Amcorp Tower, Amcorp Trade Centre
No 18, Jalan Persiaran Barat
46050 Petaling Jaya
Selangor
Tel : 03-7957 7781
Fax : 03-7957 4793

TEKNOLOGI TENAGA PERLIS CONSORTIUM SDN. BHD.
5th Floor, East Wing & Centrelink
Wisma Consplant 2
No. 7, Jalan SS 16/1
47500 Subang Jaya, Selangor
Tel : 03-5632 3633
Fax : 03-5631 3270

NUR GENERATION SDN. BHD.
Receiver And Managers Appointed
Central Control Building (CCB)
Lot 30, Jalan Hi-Tech 4
09000 Kulim Hi-Tech Park
Tel : 04-401 0100
Fax : 04-401 0319

SANDAKAN POWER CORPORATION SDN. BHD.
Lot D20, 2nd Floor, Damai Plaza Phase III
Jalan Kayu Manis
88300 Kota Kinabalu, Sabah
Tel : 088-269 831/2
Fax : 088-267 517

TNB JANAMANJUNG SDN. BHD.
Stesen Janaelektrik Manjung
Jalan Semarak Api, Teluk Rubiah
P.O. Box 12
32040 Seri Manjung, Perak
Tel : 05-688 4155
Fax : 05-688 4309

PAHLAWAN POWER SDN. BHD.
Level 43, Menara MAXIS
Kuala Lumpur City Centre
50088 Kuala Lumpur
Tel : 03-2381 6666
Fax : 03-2381 6677

TNB HIDRO SDN. BHD.
Bahagian Penjanaan
Tkt. 4, Bangunan Penjanaan
129, Jalan Bangsar
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Notes