



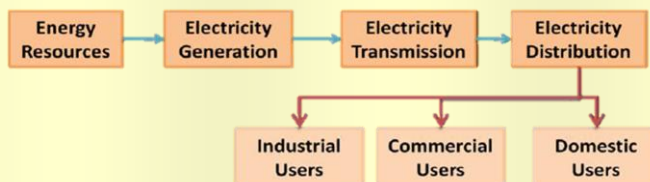
Overview

Electricity Sector in Malaysia

Introduction

The electricity sector in Malaysia ranges from generation, transmission, distribution and sales of electricity in the country. The electricity industry works in a simple model of converting energy resources into electricity.

Diagram 1: Electricity Industry Model



Regulators

The electricity industry in Peninsular Malaysia and Sabah is regulated under the Energy Commission. Electricity industry in Sarawak is being regulated under the state government.

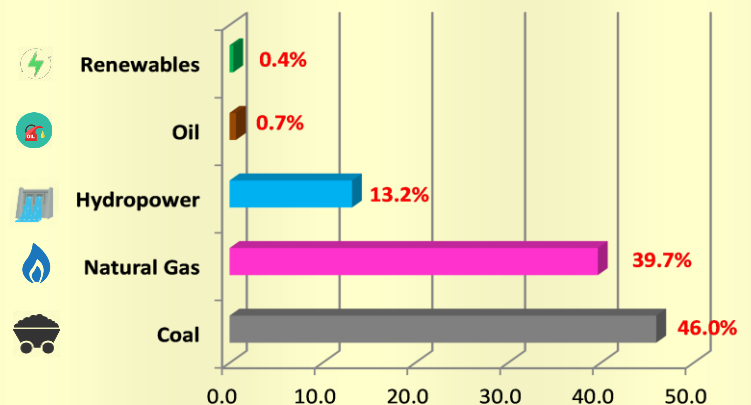
Installed Capacity

In 2016, the installed capacity in Malaysia increased 8.5 per cent to 33,023 MW compared to 30,439 MW in 2015.

Electricity Generation

Malaysia electricity gross generation in 2016 was 156,665 GWh. Coal is the main energy source used to generate electricity.

Chart 1: Energy Sources for Electricity Generation



Transmission and Distribution

After the electricity is generated at a power plant, it goes by wire to a transformer that “steps up” the voltage. The electricity is then sent on a nationwide network of transmission lines made of aluminum.

Step-down transformers located at substations along the lines reduce the voltage. Electricity is then carried over distribution lines that bring electricity to end users.



Diagram 2: Electricity Industry Model

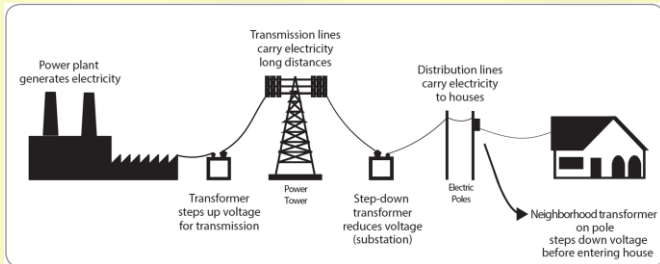


Table 1: Transmission Network in Circuit, kilometres

	Peninsular	Sabah	Sarawak
500 KV	784	-	-
275 KV	9,518	598	1,331
132 KV	12,175	2,076	388
66 KV	-	119	-

Table 2: Distribution Network in Circuit, kilometres

	Peninsular	Sabah	Sarawak
Overhead Lines	532,403	9,394	10,906
Underground Cables	697,159	1,374	4,908

Interconnection

Power grid in Malaysia is interconnected to Singapore, Thailand & Indonesia.

Electricity export destinations, 2016



Indonesia
RM214.1 million



Thailand
RM4.4 million

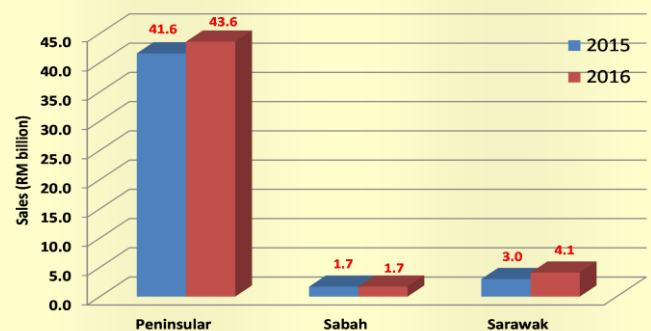
Peak Demand

Peak demand, also called peak load, is the maximum electricity usage during a specified period of time. The peak demand in Malaysia was recorded at 17,788 MW in 19 April 2016 due to the El-Nino phenomenon.

Electricity Sales

Electricity sales recorded an annual increase of 6.7 per cent in 2016, amounted to RM49.4 billion.

Chart 2: Electricity Sales by Region, 2015-2016



Electricity Consumption

Electricity consumption in 2016 posted an increase of 8.9 per cent from the previous year to register at 144,024 GWh.



Industry
47.0%



Commercial
30.8%



Residential
21.6%



Agriculture
0.4%



Transport
0.2%