

Let There Be Light

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We often take for granted the fact that when we walk into a room we can simply flip a switch and the darkness becomes light. However, have you ever stopped to consider how the electricity got to that light bulb, from where and through what method it was generated, or who regulates the sale and distribution of electric power? Over the next few weeks we are going to answer all of these questions and more as we explore Thailand's electrical industry.



To begin, it is important to understand the legal entities and authorities that are responsible for the generation, distribution, and sale of electricity in Thailand.

Electricity policy is set by the Ministry of Energy's Energy Policy and Planning Office (EPPO). The independent body charged with regulating the electricity industry is the Energy Regulatory Commission (ERC).

According to the Energy Industrial Act BE 2550 (2007), the government is primarily responsible for the generation, procurement, transmission, distribution, and sale of electricity.

These mandates are accomplished through the following legal entities:

- 1) The Electricity Generating Authority of Thailand (EGAT);
- 2) The Metropolitan Electricity Authority (MEA); and
- 3) The Provincial Electricity Authority (PEA).

All three of these authorities have different jurisdictions and mandates and, taken together, ensure that electricity is available in every city, town, and village in Thailand.

EGAT is by far the biggest and, excuse the pun, most powerful electrical authority in the country. EGAT is a state enterprise under the Ministry of Energy and the Ministry of Finance governed by the Electricity Generating Authority of Thailand Act B.E. 2511 (1968).

The main objective of EGAT is to generate, procure, and transmit electricity to the MEA and PEA for distribution and sale nationwide. EGAT also owns the national transmission grid and acts as the system operator responsible for dispatching its own and private power stations through EGAT's central and regional control centres. EGAT is the dominant generator of electrical power in Thailand, owning 40 different generation facilities which collectively generate almost 50% of Thailand's electricity.

These include 22 hydropower plants, 8 renewable energy power plants, 6 combined cycle power plants, 3 thermal power plants, and 1 diesel power plant. In addition, EGAT directly supplies certain major industrial consumers, such as Siam Cement Group and ESSO, which are specified through Royal Decree. EGAT also purchases power from some of the neighboring countries.

The Metropolitan Electricity Authority (MEA) is supplied by EGAT, and acts as a monopolistic distributor and retailer of electricity throughout Bangkok and to the surrounding provinces of Nonthaburi and Samutprakarn. The MEA is also a state enterprise and its authority is derived from the Ministry of Interior and governed by the Metropolitan Electricity Authority Act B.E. 2501 (1958).

The final piece of the electrical authority framework is the Provincial Electricity Authority (PEA) which, as its name suggests, is responsible for the distribution and sale of electrical power to the provinces. The PEA is tasked with transmitting electricity to every other province in Thailand besides those supplied by the MEA, which equates to the other 99.4% of the country geographically speaking.

The PEA is also a monopolistic distributor and retailer in its jurisdiction.

Although the Energy Industrial Act does allow for private enterprise to operate in the energy industry provided that the company either procures a license from the Energy Regulatory Commission or has a generating capacity of less than one megawatt, the PEA also acts as a monopolistic distributor and retailer in its jurisdiction.

Now that we understand what are the agencies responsible for getting the electricity to your home now and in the future, next week we will delve deeper into who generates that power.

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