Electricity regulation in Thailand: overview

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A Q&A guide to electricity regulation in Thailand.

The Q&A gives a high level overview of the domestic electricity market, including domestic electricity companies, electricity generation and renewable energy, transmission, distribution, supply and tax issues. It covers the regulatory structure; foreign ownership; import of electricity; authorisation and operating requirements; trading between generators and suppliers; rates and conditions of sale and proposals for reform.

To compare answers across multiple jurisdictions, visit the energy and natural resources *Electricity regulation Country Q&A tool*.

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Overview

Electricity market

1. What is the role of the electricity market in your jurisdiction?

Overview

The Energy Regulatory Commission is responsible (among other functions) for regulating the generation, transmission and distribution of electricity in Thailand. The market is dominated by three main state-owned utilities:

- Electricity Generating Authority of Thailand (EGAT).
- Metropolitan Electricity Authority (MEA).
- Provincial Electricity Authority (PEA).

EGAT is responsible for the regulation of:

- Electric power generation.
- Transmission.

- Bulk sale.

EGAT is a state-owned agency under the supervision of the Ministry of Energy. It is the largest power producer in Thailand, owning and operating power plants across the country, with a total installed capacity of 16,071 MW. In addition to generating its own electricity, EGAT purchases electricity from:

- Independent power producers (IPPs).
- Small power producers (SPPs).
- Very small power producers (VSPPs).

IPPs and SPPs (including VSPPs) had installed capacity of 14,949 MW and 7,536 MW respectively in 2017. In addition to domestically produced electricity, EGAT purchases electricity from hydroelectric dams in Laos, which have a capacity of 3,878 MW.

EGAT's share of total electricity generation has been steadily declining over the past decade. In 2008, EGAT generated 50% of Thailand's electricity; by 2017, that figure had slid to 38%.

In addition to generating electricity and being the primary purchaser of electricity produced by private entities, EGAT also owns and operates a high-voltage transmission network that covers all of Thailand.

Recent trends

Thailand's power development plan for 2015 to 2036 (PDP2015) forms an integral part of the Thailand Integrated Energy Blueprint (TIEB), which aligns Thailand's energy conservation plan, oil plan, and alternative energy development plan. The PDP2015 is based on three major priority areas:

- **Security of national power system.** The PDP2015 aims to be less dependent on natural gas as a power source, with a reduction target of no more than 40% in 2036 from 65% as of 2015. It aims to increase reliance on alternative and renewable energy, clean coal, and electricity imports from neighbouring countries.
- **Ecology.** The PDP aims to increase production of renewable energy to reduce carbon dioxide emissions by 2036 through the implementation of energy conservation measures in four key target groups:
  - industry;
  - business buildings;
  - residential buildings; and
  - the public sector.

  It predicts that this may result in a decrease of electricity demand of 89,672 gigawatt hours (GWh) in 2036.
- **Economy.** The PDP2015 aims to determine an appropriate electricity rate that effectively reflects actual cost, production/transmission/sales systems, and makes the least impact on people's cost of living.

Regulatory structure

See above, *Overview*.

2. What is the regulatory framework for the electricity sector?

Regulatory framework

The primary legislation governing the electricity sector is the Energy Industry Act, B.E. 2550 (2007). The Energy Industry Act established the Energy Regulatory Commission (ERC), which is the primary regulatory in the electricity industry. The ERC regulates:

- The types, fees and tenure of licences.
- The requirements to obtain electricity generating, distributing and transmission licences.
- Consumer protection.
- The utilisation of immovable property in the energy industry.

In addition, the Electricity Generating Authority of Thailand Act, B.E. 2511 (1968) permits the Electricity Generating Authority of Thailand to promulgate regulations in accordance with its objectives, relating primarily to the purchase of electricity from independent producers and the operation of the transmission system network.

Regulatory authorities

See box, *The regulatory authorities*.

Electricity companies

3. What are the main companies involved in electricity generation, transmission, distribution and supply?

Generation

The main electricity generating companies are:

- **Electricity Generating Authority of Thailand (EGAT).** EGAT generates, transmits and sells electric energy to the Metropolitan Electricity Authority (MEA) and the Provincial Electricity Authority (PEA) which distribute and sell electricity to customers.
- **Electricity Generating Public Company Limited (EGCO).** This is involved in the private electricity generation business.

- **Ratchaburi Electricity Generating Holding Public Company Limited.** This is involved in the private electricity generation business.
- **Other independent power producers.** This includes small power producers owning power plants.

Private sector investment in the generation business is actively promoted by the government through bid solicitations for power purchase from large-scale independent power producers (IPPs) and small power producers (SPPs). IPPs and SPPs are regulated by the Energy Regulatory Commission (ERC).

Transmission

The EGAT is the sole operator of the electricity transmission system in Thailand.

Distribution

The main distribution companies are the:

- MEA, which is responsible for distributing electricity in the Bangkok metropolitan area.
- PEA, which distributes electricity outside of the Bangkok metropolitan area.

Supply

The Thai electricity supply industry is based on a state-owned enhanced single-buyer scheme. EGAT is the single buyer of bulk electricity, under terms and regulations set by the Energy Regulatory Commission (ERC) to ensure the best interests of public consumers, energy resource optimisation, and fairness to all. It sells electricity to:

- MEA for the Bangkok metropolitan area and the provinces of Nonthaburi and Samutprakan.
- PEA for the remaining provinces.
- A number of direct customers prescribed by law, including Siam Cement Group (SCG), Chonlaprathan Cement Company Limited, and HMC Polymers.
- Neighbouring countries.

Unbundling requirements

EGAT is responsible for generation and transmission, whereas the MEA and PEA are responsible for the distribution of electricity throughout the country.

Foreign ownership

4. Are there any restrictions concerning the foreign ownership of electricity companies or assets?

Foreign majority owned companies that operate electricity generating facilities can obtain investment promotion from the Board of Investment (BOI) (and foreign companies can be 100% owned). The eligible companies must have obtained all relevant government approvals (such as an electricity generating licence, factory licence and must have signed a power purchase agreement and so on) before the BOI will grant investment promotion.

Insolvency

5. Are there any special insolvency regimes that apply to companies operating in this sector?

There are no special insolvency regimes which apply to companies operating in the electricity sector.

Import and export of electricity

6. To what extent is electricity imported and/or exported?

EGAT imported 24,427.42 GWh of electricity in 2017 and exported 1,105.97 GWh. As total consumption for 2017 was 185,124 GWh, imported electricity constituted approximately 13.2% of Thailand's total.

Electricity generation and renewable energy

Sources of electricity generation

7. What are the main sources of electricity generation?

The sources of electricity generation by fuel for 2017 are as follows:

Natural gas: 60.2%.

Coal and lignite: 17.8%.

Imports: 12.1%.

Renewable Energy: 7.4%.

Hydroelectricity: 2.3%.

Fuel oil: 0.1%.

Diesel: 0.1%.

8. Are there any government policies, targets or incentives in place to encourage the use of renewable or low carbon energy?

Government policies/incentives

The power development plan (PDP2015) focuses on the increase in use of renewable energy and reduction of reliance on natural gas. Policy makers aim to cut the share of natural gas in total electricity production from the 64% (in 2015) to between 30% and 40%, while increasing the proportion of renewable energy to around 15% - 20%.

The PDP2015 also aims to increase hydroelectricity capacity and to develop a nuclear power plant by 2036.

The government is currently revising its alternative energy development plan (AEDP2015) in order to meet these targets.

The AEDP2015 will be revised according to the following principles:

- Focus on power generation from waste, biomass, and biogas as priorities.
- Allocation of renewable energy generation capacity according to the demand and potential in regions/ provinces.
- Solar and wind power to be promoted at a later stage once the cost is competitive with the power generation from liquefied natural gas (LNG).
- Competitive bidding will be employed as a selection process for feed-in tariff (FiT) application instead of first-come, first-serve basis.
- Community energy production will be encouraged to reduce fossil fuel usage.
- Renewable energy consumption will increase from 8% to 20% of final energy consumption by 2036.

In October 2014, the Thai government adopted a new FiT, which replaced the former adder programme. The new FiT will be granted for 20 years, except for power systems fuelled by landfill gas, which will receive support for ten years only. There are varying FiT rates depending on the power plant size and fuel type plant size and varying bonuses are granted for certain systems.

Renewable energy targets

The total current capacity of renewable energy is 9,139.65 megawatts, with a 2036 target of 19,635 megawatts. Below are the AEDP targets:

- **Municipal solid waste.** Current capacity of 188.47 MW, target capacity of 500 megawatts by 2036.
- **Biomass.** Current capacity of 3,102.28 MW, target capacity of 5,570 MW by 2036.
- **Biogas.** Current capacity of 475.42 MW, target capacity of 1,280 MW by 2036.
- **Hydropower.** Current capacity of 2,906.4 MW, target capacity of 3,282 megawatts by 2036.
- **Wind.** Current capacity of 627.82 MW, target capacity of 3,002 MW by 2036.
- **Solar.** Current capacity of 2,692.26 MW, target capacity of 6,000 megawatts by 2036.

See box, *Renewable energy sources*.

9. What are the main obstacles to the development of renewable energy?

There are a number of technical and legal hurdles to overcome with respect to the development of renewable energy.

The first obstacle revolves around intermittency. Some renewable sources, most notably solar and wind power, can only produce electricity when weather conditions permit. Without sufficient baseload sources of energy, an overreliance on intermittent electricity generating sources may result in rolling blackouts. Technological advances with respect to energy storage (such as through more efficient batteries or pumped storage hydroelectricity) have the potential to reduce the impact of intermittency. The Ministry of Energy has taken the initiative to address this concern by instituting new firm or semi-firm capacity requirements in power purchase agreements (PPAs) with small power producers or very small power producers. The commitments in these PPAs essentially require the power producer to commit to certain specific feed-in targets.

Another obstacle is the current lack of economic incentives to deploy rooftop solar on residential buildings. At the moment, the inability of most producers to sell electricity generated by rooftop solar photovoltaic (PV) cells to a power distributor makes it economically difficult to justify incurring the still significant expense of installing PV panels. For factories or large business centres, where electricity use is highest during daylight hours, the economic case is much clearer as most of the electricity which is generated will be consumed immediately. For most residential buildings, by contrast, electricity use is generally higher when the sun is not shining. Without the ability to sell the electricity back to a distributor, there is little incentive for households to install rooftop solar PV panels. The Ministry of Energy has indicated a willingness to introduce a net metering scheme, but a challenge will be to ensure that the feed-in-tariff rate is neither too low to fail to properly incentivise households, or too high so as to cause a strain on government resources.

10. Are there any plans to build new nuclear power stations?

There are currently no formal plans to build new nuclear power stations. However, the power development plan (PDP) 2015 targets a 5% share of nuclear power by 2036.

Authorisation and operating requirements

11. What are the authorisation requirements to construct electricity generation plants?

The main authorisations required to construct and eventually operate an electricity generation plant generally include:

- A building construction permit.
- A factory licence.
- An electricity generating licence.

While not a strict requirement, the Board of Investment (BOI) currently promotes the generation of electricity by certain fuel sources, which is accompanied by a number of tax and non-tax incentives. Operators of electricity generating facilities will typically obtain an investment promotion certificate from the BOI.

There will generally also be a number of additional authorisations, permits and licences which the operator will need to obtain, depending on the specific nature of the project (that is, the location, the type of fuel used in electricity generation and so on).

12. Are there any requirements to ensure new power stations are ready for carbon capture and storage (CCS) technology, or requiring a plant to retrofit CCS technology once this is ready?

There are no regulations or requirements concerning carbon capture and storage technology yet.

13. What are the authorisation and main ongoing requirements to operate electricity generation plants?

Before beginning operations, the licensee must report its scheduled commercial operation date and submit a notification to the local office.

- An electricity generation licence must be obtained for an electricity generation plant to operate. This must be submitted to the Energy Regulatory Commission (ERC) if the plant produces 1,000 volt amps (kVA) or more.
- Wind turbines require an energy generation licence from the ERC and must follow Comprehensive Plan regulations and ERC regulations regarding operations. Comprehensive Plan regulations are issued in line with the Comprehensive Plan of the relevant city by the local department.
- For activities not requiring an energy generation licence, the applicant must submit a single line diagram of the system layout, certified by an engineer according to the relevant laws, showing:
    - the power generation system;
    - security or protection; and
    - energy control systems.
- All electricity generation plants must obtain a factory operation licence from the ERC with the following exceptions:
    - energy production through rooftop solar photovoltaic installation at a maximum production of 1,000 kWp; and
    - hydropower energy production.

If the plant is on an industrial estate, it must obtain a permit to use the land and perform industrial activities. The relevant parties must also notify the appropriate authorities at the Department of Industrial Works within 15 days from commencing operations.

14. What requirements are there concerning connection of generation to the transmission grid?

Connection to the transmission grid requires the execution of a power purchase agreement (PPA) with the Metropolitan Electricity Authority (MEA), Provincial Electricity Authority (PEA) or the Electricity Generating Authority of Thailand. The specific requirements concerning grid connectivity and metering, are detailed in the PPA. Grid connectivity is also subject to the regulations of the MEA and PEA regarding safety standards, equipment, etc.

15. What requirements are there concerning the decommissioning of a generation plant at the end of its period of operation?

The ERC can prescribe procedures and conditions when a licensee wishes to cease operations (*section 59, Energy Industry Act B.E. 2550 (2007)*). Currently, there are no specific general guidelines which outline decommissioning obligations on independent electricity generators.

Electricity transmission

Authorisation and operating requirements

16. What are the authorisation requirements to construct electricity transmission networks?

The Electricity Generating Authority of Thailand (EGAT) is responsible for electric power transmission, and is responsible for all of Thailand by transmitting electricity to the Metropolitan Electricity Authority (MEA) and the Provincial Electricity Authority (PEA), a number of direct customers prescribed by law, and neighbouring countries. It owns and operates the national transmission network which includes transmission lines and substations of various high voltage levels which cover all the country.

All construction of transmission networks is the responsibility of EGAT. The Energy Industry Act B.E. 2550 (2007) theoretically permits other applicants to obtain an electricity transmission licence, though the EGAT is the only entity which has been awarded this license.

17. What are the authorisation and main ongoing requirements to operate electricity transmission networks?

The Electricity Generating Authority of Thailand (EGAT) is the sole entity authorised to operate electricity transmission networks in Thailand. The ERC has devised an electricity transmission system licence (but no private parties have obtained the licence yet).

Transmission charges

18. How are the charges and conditions for the transmission of electricity regulated?

The Energy Regulatory Commission (ERC) is authorised to regulate the transmission of electricity in Thailand. In practice, however, the EGAT is the sole entity authorised to operate electricity transmission networks, and it is therefore internally regulated.

System balancing

19. How is electricity supply and demand balanced?

Generally speaking, Thailand's current approach to managing supply and demand has been through centralised planning at the ministerial level. The Ministry of Energy (and particularly the Energy Planning and Policy Office) takes the lead in forecasting future demand. The public utilities of the EGAT, the Metropolitan Electricity Authority and the PEA, in coordination with the Ministry of Energy, devise strategies to increase Thailand's installed capacity to meet its anticipated needs.

Electricity distribution

Authorisation and operating requirements

20. What are the authorisation requirements to construct electricity distribution systems?

The principal distributors of electricity in Thailand are the Metropolitan Electricity Authority (MEA) and the Provincial Electricity Authority (PEA). However, private operators can obtain electricity distribution licenses from the ERC. In support of the application to the ERC for an electricity distribution licence, an applicant must submit:

A copy of its contract on electricity distribution industry operations, as well as copies of power purchase agreements with customers.

A plan on distribution or acquisition of electricity with details on such distribution or acquisition.

Number of power consumers, KWh consumed by each consumer per month, power demand and maximum power demand per month and KWh sales.

21. What are the authorisation and the main ongoing requirements to operate electricity distribution systems?

The operator of an electricity distribution system must obtain the electricity distribution licence (see *Question 20*). Operators are subject to a number of ongoing obligations, outlined in regulations promulgated by the Energy Regulatory Commission and other relevant government bodies.

Distribution charges

22. How are the charges and conditions for the distribution of electricity regulated?

The Energy Industry Act B.E. 2550 (2007) permits the Energy Regulatory Commission (ERC) to regulate to protect electricity consumers. The ERC has adopted dozens of regulations aimed at ensuring consumer protection in the electricity market, many of which relate to the maintenance and operation of the Power Development Fund.

Electricity supply

Authorisation and operating requirements

23. What are the authorisation and the main ongoing requirements to supply electricity to end consumers?

Distribution in Thailand includes the supply of electricity to end consumers (see *Question 20* to *Question 22*).

Trading between generators and suppliers

24. How is electricity traded between generators and suppliers?

Independent power producers will typically sell their electricity to the EGAT, the Metropolitan Electricity Authority or the Provincial Electricity Authority under power purchase agreements. The terms and conditions on the purchase price, feed-in tariff, and other obligations regarding the sale of electricity will be outlined therein. This may include firm or semi-firm capacity commitments.

25. How is electricity trading (between generators and suppliers) regulated?

The Electricity Generating Authority of Thailand (EGAT) is the principal buyer of bulk electricity, selling to the Metropolitan Electricity Authority (MEA) and the Provincial Electricity Authority (PEA), a number of direct consumers prescribed by law, and neighbouring countries. The MEA and PEA also buy electricity directly from independent power producers and small power producers. Private sector electricity generators must generally sell their produced electricity to the EGAT, MEA or PEA (under a power purchase agreement). The terms and conditions on this trading will be outlined in the power purchase agreement.

Electricity price and conditions of sale

26. How is the price for electricity and conditions of sale regulated at the consumer and wholesale level?

Consumer

The primary distributors of electricity in Thailand are the Metropolitan Electricity Authority (MEA) and Provincial Electricity Authority (PEA), both of which are government utilities. As such, consumer protection regulation against these government authorities does not play a significant role.

The Energy Regulatory Commission regulates consumer protection primarily through the maintenance of the Power Development Fund (PDF). The PDF is funded by mandatory contributions of licensees operating in the energy industry, such as independent power producers and small power producers. Disbursements from the PDF can occur when there is a natural disaster, or when electricity generators or distributors overcharge consumers.

Wholesale

Wholesale prices between private producers and government utilities are primarily fixed by the terms of the power purchase agreements (PPAs). The PPAs used by the EGAT, the MEA and the PEA are standard form agreements signed at the commencement of a power project and are generally non-negotiable.

Statutory powers

27. Do companies involved in the generation, transmission, distribution or supply of electricity have any statutory powers to undertake work (for example, compulsory purchase powers or street works powers) or street works powers)?

The Electricity Generating Authority of Thailand Act, B.E. 2511 (1968) grants the EGAT broad authority to undertake works, including expropriating private property for the purpose of constructing hydroelectricity facilities, thermal power plants, and nuclear power plants. The EGAT is also empowered to construct transmission lines, demolish or destroy obstacles in the path of transmission lines, and expropriate private property (if needed to carry any of these out).

The Energy Industry Act, B.E. 2550 (2007), grants the Energy Regulatory Commission (ERC) the right to approve and regulate the expropriation of (or the temporary licence to use) private property for licensees, such as independent and small power producers.

Tax issues

28. What are the main tax issues arising on electricity generation, distribution, transmission and supply?

Electricity producers are eligible for investment promotion from Thailand's Board of Investment (BOI). Investment promotion entails several tax and non-tax incentives. The tax incentives include a corporate income tax holiday of six or eight years, depending on the type of fuel used in electricity generation. The tax incentives will also include a reduction or exemption on payment of import duties for new equipment.

Insurance

29. Are there any insurance requirements from the regulatory authority?

Electricity producers must contribute to the Power Development Fund (PDF), which is set up to

- Support affected communities.
- Promote the use of renewable energy.
- Create fairness to consumers.

The specific regulations relating to the PDF are found in the Regulation on Procurement of the Power Development Fund for Development or Rehabilitation of Localities Affected by Power Plant Operation B.E. 2555 (2012), as well as other regulations relating to consumer protection promulgated by the Energy Regulatory Commission. Other than the PDF, there are no mandatory private insurance schemes specifically for producers imposed by law or regulation.

Reform

30.What reform proposals are there for the regulation of the electricity sector?

The Ministry of Energy has indicated that it will update the PDP2015 to reflect current installed capacity and adjustments to its forecasts. The Thai government is pushing ahead with the development of renewables, but is mindful of the need to ensure baseload electricity generating capacity is not sacrificed.

The Thai Government is actively seeking new policy initiatives to allow households to generate and store electricity, and then sell excess electricity back to the grid. The term "prosumer", an amalgamation of "producer" and "consumer" is being widely used at the Ministry of Energy. The development of pilot smart cities (including a proposed smart city development in conjunction with the Ministry of Transport at the new Bang Sue train station in Bangkok) are being considered to evaluate the potential of extrapolating this structure nationwide.

With respect to conventional sources of energy (as Thailand's domestic gas reserves will likely dry up in the next ten to 20 years) liquefied natural gas (LNG) will play an important role in ensuring mid-term electricity security. PTTLNG, the subsidiary of the state-owned PTT Plc, is in the process of building and expanding several new and existing LNG receiving terminals.

Overall, the Ministry of Energy is looking for ways to increase private participation in the electricity generating sector. Traditionally, Thai regulators have taken a top-down approach to centrally planning energy supply and consumption. This is gradually being replaced by a model where the private sector leads development and innovation while the regulators play a facilitation role.

The regulatory authorities

Ministry of Energy
555/2 Energy Complex Building
BVibhavadi-Rangsit Rd.
Chatuchak
Bangkok 10900
Thailand

W http://energy.go.th/2015/en/
(website maintained by the Ministry of Energy and is current)

Main responsibilities. The Ministry of Energy manages the energy sector in Thailand, including granting energy operating licences and issuing energy pricing regulations.

Department of Alternative Energy Development and Efficiency
Ministry of Energy
17 Rama 1 Rd
Kasatsuk Bridge
Pathumwan
Bangkok 10330
Thailand

W http://weben.dede.go.th
(website maintained by the Department of Alternative Energy Development and Efficiency of the Ministry of Energy and is current)

Main responsibilities. Energy efficiency promotion; energy conservation regulation; alternative development of energy uses; energy technology dissemination, and improvement of, and response to, energy demands for better living standards.

Department of Energy Business
Ministry of Energy 555/2
Energy Complex Building B Floor 19th
Viphawade Rangsit Road
Chatuchak District
Bangkok 10900
Thailand

W www.doeb.go.th
(website maintained by the Department of Energy Business of the Ministry of Energy and is current)

Main responsibilities. Monitor and supervising the trade, quality, industrial safety, environmental concerns and security on energy business; improving the quality, industrial safety, and environmental for energy business; promoting an education of energy to business persons, consumers, and related persons; serving as the centre of energy information on the nation, and improving personnel's proficiency and capabilities in the organisation to increase expertise in the energy business.

Energy Policy and Planning Office
121/1-2 Phetchaburi 7 Alley
Thung Phaya Thai
Ratchathewi
Bangkok 10400
Thailand

W www.eppo.go.th
(website maintained by the Energy Policy and Planning Office of the Ministry of Energy and is current)

Main responsibilities. Recommend energy policies and integrate/review energy management plans of the country; recommend national strategies for energy conservation and alternative energy promotion; recommend measures to solve and prevent oil shortage in both the short and long term; supervise, monitor and evaluate the effectiveness of national energy policy and energy management plans, and administer information and communication technology (ICT) with regard to energy issues of the country.

Energy Regulatory Commission (ERC)
319 19th Floor Chamchuri Square
Phayathai Rd. Pathumwan
Bangkok 10330
Thailand

W www.erc.or.th
(website maintained by the Energy Regulatory Commission of the Ministry of Energy and is current)

Main responsibilities. Ensure the equality and fairness nested between consumers, producers, and other relevant interest groups; oversee the regulations that deal with electricity systems of generation, transmission, distribution, and their system operator; and monitoring energy market conditions by tariff review, licensing, approval of power purchase, dispute settlement and fulfilling its mandate in order to counterbalance each other, to ensure maximum interests of the people and the country.

Electricity Generating Authority of Thailand (EGAT)
53 Charan Sanit Wong Road
Bang Kruai
Nonthaburi 11130
Thailand

W www.egat.co.th
(website maintained by the EGAT and is current)

Main responsibilities. Electric power generation; operation and transmission nationally; engages in energy-related services businesses and expands business and investment in electricity and other energy-related businesses; and selling to MEA and PEA, a number of direct consumers prescribed by law, and neighbouring countries.

Metropolitan Electricity Authority (MEA)
30 Soi Chidlom
Pleonchit Road
Lumpini
Patumwan
Bangkok 10330
Thailand

W www.mea.or.th
(website maintained by the MEA and is current)

Main responsibilities. Generation, procurement, distribution, and sale of electricity to the public, business, and industrial sectors in the Bangkok metropolitan area and the provinces of Nonthaburi and Samutprakan.

Provincial Electricity Authority (PEA)
200 Ngamwongwan Road
Jatujak
Bangkok 10900
Thailand

W www.pea.co.th
(website maintained by the PEA and is current)

Main responsibilities. Generation, procurement, distribution, and sale of electricity to the public, business, and industrial sectors in 74 provinces with the exception of Bangkok, Nonthaburi and Samutprakan.

Contributor profiles

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Professional qualifications. Licensed attorney in Massachusetts.

Areas of practice. Energy and infrastructure; banking and finance; commercial transactions and M&A.

Non-professional qualifications. LLM, McGill University; BCL/LLB, McGill University; LLB, Kobe University.

Recent transactions

- Assisted a foreign majority engineering and construction consortium member on secured financing and licensing matters in connection with an EPC agreement to develop a wind farm in northern Thailand.
- Advised a Japanese buyer in acquisition of interest in a biomass power plant, including assisting in formulating bridge-financing structure, while advising on licensing and foreign ownership restrictions to ensure post-closing compliance.

- Advised a German solar developer and EPC contractor on investment considerations in Thailand and Vietnam.

Languages. English, Japanese, French

Professional associations/memberships. Vice president and director of the Thai-Canadian Chamber of Commerce (CANCHAM); Member of the Association of International Petroleum Negotiators (AIPN).

Publications

- *Lessons from Thailand on the Importance of Devising and Implementing Detailed Decommissioning Regimes, Oil, Gas & Energy Law Intelligence Journal, March 2018.*
- *Thailand's Power Development Plan: 2018 Update Expected to Focus on Renewable Energy, Voyageur – a publication of CanCham Thailand, 23 April 2018.*
- Merger Control in Thailand's Energy Sector, Informed Counsel, 28 February 2018.

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