

Green Building in Thailand

February 2020



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I. Introduction

The devastating effects of pollution and the protection of the environment become an increasingly important issue in Thailand. In 2011, the Thai government decided to support environmental protection by promoting investments in "green" products and "ecofriendly" materials. In the course of this process, Thailand introduced the concept of "Green Building". As it becomes increasingly important in public policy, there are more and more government incentives and subsidies promoting environment-friendly buildings. This newsletter lays out the investment possibilities in the "Green Building" industry in Thailand.

1. "Green Building"

The term "Green Building" refers to environment-friendly and eco-efficient planning, constructing and operating of buildings. These buildings have to meet certain criteria regarding their construction (materials) and operation, maintenance, renovation and demolition. The criteria refer to different elements and depend on what rating system is chosen to certify the building (see below). Regardless of the rating systems, the elements relate to the use of renewable (local) building materials, the reduction of waste and energy (e. g. by using renewable energy) or the prevention of pollutants in the air (e.g. by using a green roof as a natural filter for pollutants).

"Green Building" thereby contributes to

- energy saving;
- water efficiency;
- reduction of waste;
- reduction of carbon dioxide; and
- thus, to pollution control.

Generally speaking, the construction costs exceed those of a standard building by approx. 20 percent, which poses the main obstacle for this concept in Thailand. The subsequent transformation of a standard building into a "Green Building" exceeds the simple renovation costs by approx. 30 percent. However, expenses for electricity and water supply of "Green Building" are approx. 20-30% lower than of a standard building which will benefit building owners in the long run.

"Green Building" creates a new market for environment-friendly products like wooden structural panels, glass facades, floor surface and glue, heat pumps and inverters as well as many other products.

2. Certification Programs

"Green Buildings" are usually certified on the basis of green building certification programs. In Thailand, the most important certification systems are:

- Leadership in Energy and Environmental Design ("LEED"); and
- Thailand Rating Energy & Environment System ("TREES").1

LEED was developed by the U.S. Green Building Council and is used worldwide. TREES was developed on the basis of LEED and modified to fit Thailand's particular needs.2

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Other certification rating systems are BREEAM (UK), DGNB (Germany), CASBEE (Japan), Green Star (Australia), ESCALE (France), Green Building Tool (Canada), LOTUS (Vietnam), GOBAS (China), GBCC (Korea), HKBEAM (Hong Kong), Green Mark (Singapore), Green Index (Malaysia), TEEAN (Thailand) and PCD (Thailand).

TREES was developed by the Thai Green Building Institute. Further information can be retrieved under:



Both rating systems are similar: Among other things, they determine

- criteria to evaluate and certify a building's construction; and
- its inner and outer design as well as its operation and maintenance.

Other criteria relate to the building's management, its site, landscape, materials and resources, energy and atmosphere, water conservation, recycling and indoor environmental quality. Corresponding to those ecological aspects, the building is awarded credits and will be rated according to its total score. Apart from that, the Thailand Energy & Environmental Assessment Method by the Thai Ministry of Energy ("TEEAM") and an Adaptation of German Sustainable Business Council by Thai Association of Sustainable Construction ("DGNB") have been released recently.

Currently, these building standards are not mandatory in Thailand. But this may change since many countries support sustainable construction. In Germany, for instance, official buildings exceeding the construction costs of EUR 1 million have to comply with the Federal Guideline for the Construction of Sustainable Buildings (Leitfaden Nachhaltiges Bauen des Bundes). In Thailand, the use of the LEED and TEEAM certification systems may also become mandatory in the future. The adaptation of national standards (TEEAM) shows the increasing awareness for this matter.

3. Thai Green Building Code and further relevant Regulations

A further measure of supporting environmental protection is the enactment of the Energy Conservation Promotion Act B.E. 2535 (1992), amended by the Energy Conservation Promotion Act (No.2) B.E. 2550 (2007).

This Act requires factories or buildings

http://www.tgbi.or.th/ (last retrieved: 03 February 2022).

- with an electricity meter value exceeding 1,000 kilowatts; or
- in which a transformer exceeding 1,175 kilo volt amperes is installed; or
- having a waste energy of 20 million mega joule per year

to

- appoint a specific person in charge of energy usage; and
- provide an annual report regarding the energy usage and a plan concerning energy policy, energy training etc. to the Department of Alternative Energy Development and Efficiency.

To be able to fulfill one's duties properly, the building's owner can apply for a support fund provided by the Department of Alternative Energy Development and Efficiency amounting to 20 percent of the sum invested in energy reducing processes.

Irrespective of the above, in the case of non-compliance with the aforementioned duties, the building owner will be penalized with a fine ranging from THB 50,000 to THB 200,000 and/or imprisonment.

Based on the aforementioned Act, the Minister of Energy issued the Ministerial Regulation re Types or Sizes of Buildings and Standards, Criteria and Methods of Designing Energy Conservation Buildings B.E. 2552 (2009). This regulation includes the Building Energy Code (BEC) which sets the minimum standards and efficiency requirements for new and renovated buildings to reduce energy usage.

This regulation is applicable to nine types of new or renovated governmental buildings. Buildings falling into the scope of the regulation have to be equipped with an energy system affecting the energy usage such as a certain level of heat transfer, specific light power and air conditioner size etc. With regard to the private sector, the regulation cur-



rently³ only requires cooperation, so it provides no penalty in case of non-compliance. A private company that complies with this regulation will receive a plate and label to certify the building as eco-friendly.

II. Investing in the "Green Building" Sector

The rules governing foreign investment in Thailand are rather restrictive and require foreign investors to apply for a so-called Foreign Business License ("FBL") if the majority of a company's shares is held by foreigners.

To increase foreign direct investment, the Kingdom of Thailand, however, promotes investments in promising economic sectors. The objective is to attract foreign investors and strengthen the domestic economy. Such investment promotions are granted by the Thailand Board of Investment ("BOI").

1. "Foreign Business Act"

Foreign investors have to respect the rules of the Foreign Business Act B. E. 2542 (1999) ("FBA"). According to the FBA, the following persons are restricted when doing business in Thailand:

- individuals not having the Thai nationality;
- entities which are not registered in Thailand; and
- entities registered in Thailand whose capital is held to at least 50% by foreign nationals or by foreign entities (irrespective of the amount of partners, shareholders or members) or was invested by those.

The aforementioned restrictions exceptionally do not apply if

- if a Foreign Business License ("FBL") was granted for the exercised business area;
- the business is subject to an exception from the FBA; or
- the business is not covered by the scope of the "Foreign Business Act".

The FBA classifies businesses in different categories (list 1, 2 and 3). Foreigners can only operate without an FBL in sectors which are not named in these lists (e. g. export or production). Therefore, investors wishing to produce products for the "Green Building" industry can do so without an FBL.

2. Investment Promotion by the Thailand Board of Investment (BOI)

Until 31 December 2013, the BOI provided a special promotion category for environment-friendly products and materials.4 Unfortunately, these promotions were not prolonged. However, the following investment promotions remain eligible:

Investment Promotions

Currently, the BOI promotes the production of specific ecological products such as

- electrical products;
- eco-friendly chemicals;
- eco-friendly polymer material; and
- recycling and re-use of unwanted materials.

The investment incentives granted differ from product to product.

The two most important promoted categories regarding "Green Building" are

the manufacture of solar cells (5.4.2); and

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A new Royal Decree is currently being drafted and expected to be published in mid-2020, which will also require private sector buildings with a total area of at least 10,000 square meters (in 2019), 5,000 square meters (in 2020), and 2,000 square meters (in 2021) to comply with the BEC, and it may impose punishment for non-compliance

Item 1.2.2: activities 6.4 category of the Announcement of the Board of Investment No. 1/2556 regarding Investment Promotion for Sustainable Development.



- the "Energy Service Company" ("ESCO", 7.8).

Furthermore, another ESCO incentive is the "ESCO Revolving Fund". It supplies financial support and investment services such as equity investment, ESCO venture capital, equipment leasing, carbon credit facility, credit guarantee facility and technical assistance. The fund collaborates with 11 different banks and offers a loan of 7 years regarding energy conservation and renewable energy projects up to THB 50 million with less than 4 percent interest per year (flat rate).

b) "Energy Service Company" Promotion

Before applying for an ESCO promotion with the BOI, an approval from the Ministry of Energy needs to be obtained. Approvals are only granted on a project basis. Besides this, the scope of the ESCO promotion is rather narrow and limited to consulting services.

c) BOI Application Procedure

The BOI application procedure is investorfriendly and can be performed in a short period of time since the BOI strives to attract investors to Thailand.

3. Approval of further Activities

Foreign investors who plan to perform further business activities, such as

- wholesale and/or retail; and/or
- services,

have to generally apply for an FBL for every single activity as referred to in the FBA.

The experience shows that an FBL for activities for wholesale/retail is only granted if there are enough reference points suggesting the concrete business operation will not be competing with Thai competitors.

However, an FBL is not required for whole-sale/retail if the company registers and fully pays up a share capital amounting to THB 100 million per activity.

Should the company want to carry out wholesale activities, an application for the investment promotion "International Business Centre" ("**IBC**") or "Trade and Investment Office" ("**TISO**") is sufficient. The wholesale activities covered by TISO, however, only extend to tools and equipment. IBC covers all wholesale activities. Both investment promotions require annual operating expenses of THB 10 million.

4. Standard for Products

Please note that (environment-friendly) products may have to meet standards according to the *Industrial Product Standard Act B.E. 2511 (1968)*. This Act sets standards for over 2,000 products. The standard is compulsory for only about 115 different products (as of 31 January 2020) such as light bulbs, electric wires, safety glasses, etc.

An operator may apply for certification in accordance with the industrial standard set under the Thai Industrial Standard Institute by the Ministry of Industry as well as comply with the ISO and IEC standard. The ISO refers to standards developed by the International Organization for Standardization, the IEC to standards set by the International Electrotechnical Commission (regarding standards and conformity assessment for electrical, electronic and related technologies). As the certification is not compulsory, it seems to be only reasonable regarding marketing objectives.

III. Summary

"Green Building" becomes increasingly important in Thai public policy. The Thai government has enhanced environmental protection measures by enacting numerous laws regarding the construction, equipment and operating standards as well as promoting



environment-friendly products. A new market regarding environment-friendly construction materials and similar products is growing. Its development will greatly depend on how the Thai government will enforce these laws and standards.

We hope that the information provided in this newsletter was helpful for you. If you have any further question please do not hesitate to contact us.

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