

Manufacturing Electric Vehicles (EV) and Batteries (EVB) Under Thailand BOI Incentives

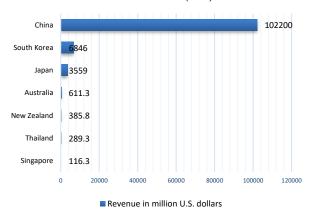
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I. Introduction

With a revenue of over 100 billion US dollars in 2021, China led the Asia-Pacific region in revenue generated by the market for electric vehicles. Tab-1 below shows its dynamic demand for electric vehicles (**EV**).



| Tab-1 Electric vehicles (EV) market revenue in the Asia-Pacific region in 2021 (in million U.S. dollars) Source: Statista

Relying on the geographical location in Southeast Asia, Thailand is implementing policies to become Southeast Asia's EV manufacturing hub. On 13 June 2022, the Thai Board of Investment (**BOI**) approved a US\$1.03 billion worth of investment applications in a manufacturing project to manufacture battery electric vehicles (**BEV**). The applicant is a joint venture between Taiwan's Foxconn and Thailand's partially state-owned oil and gas giant PTT.

The BOI updates from time to time the incentives for investment in electric vehicles, accessories and related infrastructure. This newsletter will give a glance to the projects granted BOI promotion benefits for the production of electric vehicles and electric vehicle batteries, and what BOI incentives they can apply for.

II. BOI-approved projects for EV manufacturing and BOI incentives

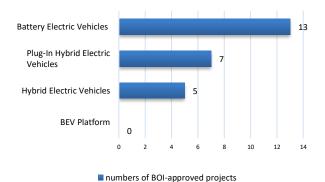
1. BOI-approved projects for EV manufacturing

EV manufactures obtained BOI promotion benefits including BMW, Mercedes-Benz, Great Wall, Saic Motor and the joint venture of Ford and Mazda.

As of 31 May 2022, the BOI has approved incentives for some 25 EV production projects. This includes:

- ➤ 13 projects wholly or partly manufacturing <u>battery electric vehicles</u> (**BEV**);
- ➤ 12 projects wholly or partly manufacturing Plug-In Hybrid Electric Vehicle (PHEV) or Hybrid Electric Vehicle (HEV).

However, there are currently no BOI-approved projects manufacturing BEV platforms.



| Tab-2 Statistics of BOI-approved project for EV manufacturing Source: BOI

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2. BOI incentives and requirements

The BOI incentives depend on the type of electric vehicles and investment capital as illustrated in Tab-3 below.

The BOI also encourages investors to start the manufacturing as soon as possible. All approved manufacture of EV must be started within 3 years from the date the BOI promotion certificate is issued.

Meanwhile, if the BEVs manufacturer can start manufacturing in 2022, additional 2 years of CIT exemptions shall be granted.

III. BOI-approved projects for EVB and spare parts manufacturing

1. BOI-approved projects for EVB, EV charging stations and other EV parts

BOI-approved manufactures of batteries for electric vehicles (**EVB**), EV charging stations and other EV parts include the ones from Saic Motor, Honda, Toyota, and SWS Motors.

As the BOI announced on 13 June 2022, the BOI has granted promotion benefits to 16 production projects of batteries for electric vehicles with a total investment of just THB 4.82 billion.

This shows that the manufacturing industry of EV parts is just in its infancy phase. Nevertheless, this industry will develop along with the EV manufacturers.

The conditions of the promotion are similar as for the production of the vehicles themselves: Any BOI-approved project of EV manufacture must start the manufactures of following items within <u>3 years</u> of BOI promotion certification granted:

- electric batteries from the module production process (own project or other manufacturer's project);
- minimum 1-2 key parts of EV as below:
 - traction motor;
 - battery management system (BMS); and
 - drive control unit (DCU).

Tab-3 Brief of BOI incentives of EV manufacture

Manufacture of	Tax incentives	Non-Tax incentives
BEVs and BEV Platform and key parts, with investment capital ≥ 5,000 million baht*	 8 years of CIT exemption; exemption of import duties on machinery and raw materials used in production for export; and others. Additional 1-5 years of CIT exemption for R&D centre and/or training for advanced technology. 	 Land ownership; remit money abroad in foreign currency; easier access to visas and
BEVs and BEV Platform and key parts, with invest- ment capital < 5,000 million baht* PHEVs	 3 years of CIT exemption; exemption of import duties on machinery and raw materials used in production for export; and others. 	work permits for experts; • others.

^{*} The investment capital above excludes land costs and working capital.



2. BOI incentives and requirements

For the projects that are manufacturing batteries for electric vehicle (**EVB**), EV charging stations and other parts for EV's, the BOI provides different incentives as shown in Tab-4 below.

Among EV parts and equipment, manufacturing EVB with cell production process and/or module production process is subject to the highest level of incentives. For example, a BOI-approved project to manufacture EVB

with cell production process is CIT-exempted for minimum 8 years.

Apart from other parts for EV, the producer of EV charging stations is committed to obtain ISO 18000 certification within 3 years after the BOI promotion certification granted.

Tab-4 Brief of BOI Incentives of manufactures of EVB, EV Charging Stations and other parts for EV

Manufacture of	Tax incentives	Non-Tax incentives
Battery for EV	 with <u>cell production</u> process: 8 years of CIT exemption (no cap); others; special reduction 90% of import duties for raw or essential materials. with <u>module production</u> process: 8 years of CIT exemption; others; special reduction 90% of import duties for raw or essential materials. only with pack <u>assembly</u> process: 5 years of CIT exemption; others. 	 Land ownership; remit money abroad in foreign currency; easier access to visas and work permits for
EV charging stations	For not less than 40 stations with over 25% quick charge (DC) • 5 years of CIT exemption; • others. For below 40 stations • 3 years of CIT exemption • others.	experts; • others.
Other EV parts	 8 years of CIT exemption; others.	

| Source: BOI



IV. Further Non-BOI Incentives for EVs

In early 2024, the National Electric Vehicle Policy Committee (EV Board) approved farreaching financial and tax incentives for companies in the e-mobility sector in order to further boost the Thai EV ecosystem and Thailand as an EV production location. Further action was taken on both the consumer and producer side.

In addition to the EV 3 and EV 3.5 incentives for private electric vehicle use that have already come into force, the new regulation is intended to grant tax deductions for the use of electric buses and lorries. Vehicles built in Thailand can be deducted up to twice their purchase price without a capping. Imported vehicles can be deducted up to 1.5 times their purchase price without a capping. The subsidy is valid until 31 December 2025.

Additionally, a plan was adopted to boost the local production of battery cells for electric vehicles and energy storage systems (ESS). The aim here is to facilitate production investment with the help of subsidies under the Competitiveness Enhancement Act. To be eligible for investment support under this programme, companies must meet the following criteria: (1) they must be a leading and recognised battery manufacturer that supplies batteries to electric vehicle manufacturers; (2) they must have a clear plan for the production of battery cells for electric vehicle batteries and, where possible, batteries for ESS; (3) the batteries must have a high energy density of at least 150 watt hours per kilogram; (4) the battery must have a lifetime of at least 1.000 cycles, calculated from 70 % of the nominal capacity at a depth of discharge of at least 80 % at a test temperature of 20-25 °C. Interested companies can apply for such funding until the end of 2027.

V. Conclusion

BOI incentives contribute to attract investments of some foreign brands in setting up factories in Thailand to produce electric vehicles, batteries for electric vehicles and other parts. However, the statistics found yet lack showing R&D centres, manufacturers of EV platforms, and EV charging stations. With the expansion of the consumer market for electric vehicles, the demand for supporting R&D and manufacturing is expected to gradually increase.

Foreign investors shall note that the BOI updates from time to time the incentives for investment of manufactures of all categories of EV. It is necessary to check the up-to-date incentives as well as policies of the BOI on certain type of productions.

The additional non-BOI Incentives further showcase the commitment of the Thai government to promote the production and use of electric vehicles.

A guideline of the preparation of BOI application can be found at: <u>BR 006 E - Guide to BOI Applications</u>.

Automotive suppliers interested in investing in Thailand may find our industrial study in Chinese language at: N214 Automotive supplier in Thailand and Vietnam — Legal framework for production and export.



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

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