

Press Release

TAI takes the first step to respond the driving toward future vehicle policy Opening Ceremony "Electric Vehicle Technology and Innovation Learning Center" Friday 7th July, 2017, 09.00 – 13.00 hrs. Thailand Automotive Institute, Bangpoo, Samutprakan

Dr. Somchai Harnhirun, Permanent Secretary – Ministry of Industry presides over the opening ceremony of Electric Vehicle Technology and Innovation Learning Center and delivers keynote in the topic of "Preparation the readiness of Thai operator towards future automobile". Mr. Adisak Rohitasune, Board of Director, Acting President of Thailand Automotive Institute gives welcome speech and opening remark for the objective of this project on July 7th, 2017 at Thailand Automotive Institute (TAI), Bangpoo, Samutprakarn.

"Electric Vehicle or Vehicle driven by electric motor (EV)" has been recognized, worldwide, during the past 5 years due to its higher efficiency with lower emission rate. Owing to more environmentoriented values that focus on economy and less emission, automotive technology is subject to change from fossil fuel to electric energy. As a consequence, energy storage and driving systems of fuel tank and internal combustion engine have to change to battery and electric motor. This has impact to Thailand as one of world major automotive manufacturing bases, though there are some limitations on capacity and price of charging device or battery. Automotive manufacturers have developed to cross over these. It is forecasted that the price of lithium battery would be reduced, significantly, along with the price of EV in 2020. This is the turning point of EV industry that will be expanded, considerably.

As of year 2016, there are 2 million units of EV which are categorized as Plug-in Hybrid Electric Vehicle (PHEV) for 1.2 million units and Battery Electric Vehicle (BEV) for 0.8 million units. China takes the highest market share of this market followed by USA with 1.5% of total number of EV. This indicates that EV still has the bright future. As a consequence, this urges the government for development into 2 dimensions 1. National economic development: the government set automotive industry as 1 of 10 targeted industries which is the new engine of growth. However, the automotive industry development is needed for being the next-generation automotive such as Electric Vehicle 2. Automotive development: it is targeted to production and sustainable mobility under the concept of "Clean-Economy-Safety".

In order to further Thai automotive industry into the new generation by EV production, on March 28th, 2017, the resolution of cabinet agreed on supporting the EV production in Thailand from the proposition of Ministry of Industry (MOI) and assigned related agencies to issue the measures in order to reify EV production in Thailand. The government agencies have to integrally proceed this; according to the measures, in both of demand and supply as well as relevant infrastructure.

The measure of demand that boosts domestic market, the cabinet resolution allows government agency and state enterprise to purchase BEV and allows related organizations to increase the proportion of

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PHEV and BEV in service areas; including, airport, pollution-free zone under the project of Eastern Economic Corridor (EEC) and the popular large historical park such as Sukhothai Historical Park.

For supply measure, the Board of Investment of Thailand (BOI) has welcomed the manufacturing investment of EV, EV parts, charging device and charging station. Nevertheless, the applicant has to propose the project as a package which consists of assembling, major parts production; including motor, battery, Battery Management System (BMS) and Drive Controller Unit (DCU), waste battery disposal plan and development plan for raw material or domestic auto parts manufacturer in order to pass on the knowledge to them.

For infrastructure, MOI plays a major role for the National Automotive and Tire Testing Center establishment on 1,200 rais at Amphoe Sanam Chai Khet, Chachoengsao which is the fundamental to further Thai automotive industry towards industry that is generated value added from innovation and promote Thailand as the target investment of future automotive production. This center will be operated for the 1st phase on March 2018. Meanwhile, Thai Industrial Standards Institute (TISI) has administered standards that are related to EV. Standard for Plugs, Socket-Outlets, Vehicle Connectors and Vehicle Inlets-Conductive Charging of Electric Vehicle (TIS 2749, IEC 62196-2:2016) has been applied while other standards are on process: electric charging system, electromagnetic compatibility and EV battery standards. Moreover, Ministry of Energy (MOE) has conducted the promotion project of electric charging device installation to promote EV, as well.

As a result, TAI has been assigned from Office of the Permanent Secretary – Ministry of Industry to establish "Electric Vehicle Technology and Innovation Learning Center" at Bangpoo – TAI. The objectives are being an EV knowledge center for operator, government and publics as well as supporting innovation activity of Thai automotive industry sector which will be a fundamental of development towards EV manufacturing center of Thailand in the future. **"Electric Vehicle Technology and Innovation Learning Center" will be operated during the period of 2017 – 2020 and consists of following activities**

Activity 1 Collaboration to develop and deliver EV knowledge to Thai operator as below

- Collaborate with National Science and Technology Development Agency (NSTDA) for the research of EV battery pack designing; the model of passenger car
- Cooperate with King Mongkut's University of Technology Thonburi (KMUTT) to study technology and major parts of EV
- Cooperate with Chulalongkorn University (CU) to study technology of electric charging device and safety

In this regard, BMW (Thailand) Co., Ltd., Nissan Motor (Thailand) Co., Ltd. and Delta Electronics (Thailand) PCL. collaborate with TAI by providing EV and charging station. TAI and other network organizations have worked together for research and will divulgate knowledge to operators through workshop with 3 programs during June – August 2017 as the objective of supporting operator in order to take the first step in production development in the following years.

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Activity 2 Preparation for the world EV auto parts manufacturer database. This is to support value chain of EV industry in the future. There is also a study for the impact of EV industry to Thai automotive value chain in order to evaluate and prepare Thai auto parts manufacturer for readiness to the new technology.

Activity 3 Preparation 3 sets of VDO presentation of EV knowledge to deliver awareness to publics which are EV and sustainable future, EV and safety and EV charging. Additionally, to access academic and industry information, TAI has an exhibition as known as Electric Vehicle Technology and Innovation Learning Center at Bangpoo – TAI where EV information, parts, electric system mockup, VDO presentation and charging station are displayed.

TAI determines to proceed this project; continuously, with distinctive objective. In the following years, TAI will build on knowledge into researches which will be beneficial to industry sector in order to generate reificatory production and extend EV knowledge, inclusively. These will strengthen competitiveness and readiness of Thai automotive industry to automotive industry revolution, sustainably.

*Note

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