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Truck Production Index

Chris Fisher

Jim Downey

By Chris Fisher, Senior Commercial Vehicle Analyst and Jim Downey, Vice President - Global Data Products

Q1 2022 Truck Production Declines 4.4%

St. Paul, MN — The year-over-year (Q1 2021 to Q1 2022) Power Systems Research Truck Production Index (PSR-TPI) dropped 114 to 109, or 4.4%. For the three-month period ended March 31, 2022, Q1 2022, the TPI decreased 9.2%, declining from 120 to 109.

The PSR-TPI measures truck production globally and across six regions: North America, China, Europe, South America, Japan & Korea and Emerging Markets.

This data comes from **OE Link™**, the proprietary database maintained by Power Systems Research. **PSR**

DATAPOINT: *US Lawn & Garden Tractors*

709,700

By Carol Turner, Senior Analyst, Global Operations

709,700 units is the estimate by Power Systems Research of the number of Lawn & Garden Tractors to be produced in the United States during 2022.

This information comes from industry interviews and from two proprietary databases maintained by Power Systems Research: **EnginLink™**, which provides information on engines, and **OE Link™**, a database of equipment manufacturers.

Market Share: With 39% of total units produced, Husqvarna leads in production of Lawn & Garden Tractors in North America. In second position, with combined plant totals, is MTD with 33.5%; third, also with combined plant totals, is Deere & Co. with 23.5%.

Trends: In 2021 production of Lawn & Garden Tractors in North America (US) increased 4.5% over 2020 to 683,250 units. Production in 2022 is expected to reach 709,700 units, a gain of 4.5%, compared to 2021. The forecasted gain is driven by the demand for new fuel-efficient models in the market along with the demand for new equipment.

Production has been slowed somewhat by the temporary lull in production of the Craftsman line, the saturation of new products in the market, and the unfavorable mowing conditions caused by the wet spring.

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Datapoint
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Yanmar Holdings Co. Ltd, the multi-billion dollar multinational company headquartered in Osaka, Japan, has acquired a majority of shares of a young and fast-growing ELEO Technologies B.V. from the Netherlands, this month.

The latest models offer a variety of features for homebuyers based on yard size. Entry-level lawn riders are suited for 1.5 acres or less and usually have 1-cylider engines. Mid-grade riders have twin cylinder engines with high HP's that work well in large cutting areas.

Production is expected increase up to 5% by 2025; lifespan of this product has about a 10-year turnover. **PSR**

Europe Report

By Natasa Mulahalilovic, Finance and Administration Manager – Europe

Yanmar Acquires Fast Growing Battery Technology Firm

Natasa Mulahalilovic

Yanmar Holdings Co. Ltd, the multi-billion dollar multinational company headquartered in Osaka, Japan, has acquired a majority of shares of a young and fast-growing ELEO Technologies B.V. from the Netherlands, this month. The acquisition has been completed through European's subsidy, Yanmar B.V. An earlier investor, Lumipol Group, has entirely exited the company.

As a part of Yanmar Power Technology Co, Ltd, Eleo will continue operating as an independent entity under its existing brand and with production located in their current site in Helmond, the Netherlands.

ELEO Technologies B.V. was founded in 2017 to design and produce innovative modular electric batteries systems for use in marine, industrial machine, e-mobility, commercial vehicles or specialized recreational product applications.

ELEO's modular battery technology offers a superior energy density while the flexible design enables the module length to be easily increased without any additional engineering. The modules are easily scalable in any orientation and direction to reach desired voltage and capacity. Batteries are based on the lithium nickel manganese cobalt oxide (NMC) and lithium nickel cobalt aluminum oxide (NCA) technologies.

Co-founders Bas Verkaik, Jeroen Bleker and Bram van Diggelen, will remain the key technology and business developers of the company. They will be joined by executives from Yanmar to form the management board. "Yanmar's leading position, premium brand reputation, global network and decades-long experience in off-road applications and ELEO's advanced modular battery systems," said Bas Verkaik, "are a perfect match to accelerate the adoption of electrified powertrain solutions worldwide."

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Europe Report

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President of Yanmar Power Technology, Tomohisa Tao, said Yanmar is committed to delivering electric powertrain solutions that enable their customers to adopt zero-emission technology without compromising on productivity. "The investment in ELEO gives us the opportunity to adopt highly innovative technology that has been engineered for the tough conditions in which our end-users work."

This transaction is another example of a traditional combustion engine manufacturer looking for innovative technology solutions worldwide to migrate to electric driven systems to achieve zero emission objectives. **PSR**

Brazil/South America Report

By Fabio Ferraresi, Director Business Development-South America

Fabio Ferraresi

Fleet Renewal Program Goes Live in Brazil

The Brazil Government has published a law starting the Truck and Buses Scrappage Policy, aiming to renew fleets, increase productivity and efficiency, reduce emissions and improve safety. Depending on the effectiveness of the program, it may affect the MHV market. See complete article translated in our webpage and the original from *Automotive Business*.

Source: *Automotive Business* **Read The Article**

PSR Analysis: The launch of the Renovar program is a positive sign on the path of improving safety, logistics efficiency and environmental impact for Brazil, with genuine and relevant objectives.

Because it is a voluntary program, operating in phases, with regulations and parameters yet to be defined, it is too early to project the effectiveness and impact on the vehicle market.

We believe that Brazil still needs broader legislation for a long-term program with a gradual and geographically differentiated process to restrict the movement of older, less safe trucks and buses with lower efficiency and higher emission levels. Fleet owners, autonomous carriers, OEMs and the entire production chain need predictability for long-term planning to prepare for and assure feasibility for a broad and scheduled fleet renewal. **PSR**

Tupy Acquires MWM in Brazil

The Transaction involving the Brazilian Tupy and the subsidiary of Traton Group is around US$ 186 Million and it is approximately four times the 2021 EBITDA of MWM, with revenue of US$ 580 million.

Source: *Info Money* **Read The Article**

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South America Report

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PSR Analysis: Tupy has been demonstrating its willingness to invest in engine research and development for cleaner propulsion and alternative ICE propulsion with Hydrogen and other alternative Fuels. With the knowhow and facilities of MWM added to Tupy, the outlook is positive for growth in new technology and better product offerings for customers and ultimately higher volumes for the new Tupy–MWM company. **PSR**.

China Report

By Jack Hao, Senior Research Manager - China

Jack Hao

Five Year Plan Encourages Development of LNG Trucks and Ships

"By 2025, the national gas storage capacity of intensive layout will reach 55 billion ~ 60 billion cubic meters, accounting for about 13% of natural gas consumption. Build a green and low-carbon transportation system, optimize and adjust the transportation structure, vigorously develop multi-modal transport, promote the medium and long-distance transportation of bulk goods "from rail to water", encourage the use of clean fuels such as LNG in the field of heavy-duty trucks and ships, and strengthen the guarantee of clean energy supply in the transportation industry. It is emphasized that the LNG storage and transportation system in Bohai Rim region, Yangtze River Delta region and Guangdong Hong Kong Macao Bay area should be continuously improved, and the core is the construction of LNG terminal."

Source: *NDRC* **Read The Article**

PSR Analysis: China's LNG import volume in 2022 is expected to surpass Japan and become the world's largest LNG importer. At the same time, China has built 22 LNG terminals. There are more than 200 LNG manufacturers in China, with an annual capacity of about 30 million tons.

Meanwhile, in 2020, the supply of domestic LNG reached 21.97 billion cubic meters, a year-on-year increase of 12.68%. In addition to pipeline gas, the feed gas of these factories also includes coal-bed methane, shale gas, coke oven gas and coal to gas.

Heavy truck vehicle exhaust emission is an important pollution source of vehicle emission. Trucks use natural gas, and PM2.5 emission can be reduced by 93% compared with that of diesel. At the same time, it is much easier for a gas engine to meet the national six emission standards than a diesel engine.

Since January 1, 2021, China's heavy trucks have begun to fully implement the national six emission standards. The advantages of environmental protection and economy will significantly increase the market competitiveness of LNG heavy

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China Report

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trucks. At the national level, LNG heavy trucks play an important role in realizing China's "double carbon" goal and promoting the healthy development of China's natural gas industry.

As a "transformational" fuel, LNG is leading the shipping industry towards a cleaner and environmentally friendly future. Compared with diesel powered ships, the use of LNG powered ships will effectively reduce the emissions of 20% carbon, 80% nitrogen oxides and 100% sulfur oxides and particles. It is the most effective way for the shipping industry to reduce emissions at this stage. While actively promoting the goal of "double carbon", the market demand for relatively clean LNG is increasing rapidly, and the market of LNG carriers will also grow quickly. **PSR**

As a "transformational" fuel, LNG is leading the shipping industry towards a cleaner and environmentally friendly future.

Far East: Japan Report

By Akihiro Komuro, Research Analyst, Far East and Southeast Asia

Akihiro Komuro

Yanmar Makes Major Battery Buy

Yanmar Holdings Co. Ltd. announced it has acquired a majority share in ELEO Technologies B.V., a battery technology company based in Helmond, the Netherlands. By integrating ELEO's advanced, scalable, and modular battery technology, Yanmar said it will further its electrified powertrain capabilities with customized solutions for off-road applications.

After joining the Yanmar Group as part of Yanmar Power Technology Co., Ltd., ELEO will continue to operate as a stand-alone entity under its own brand at its current location in Helmond, the Netherlands.

Founded in 2017, ELEO Technologies develops and produces advanced modular battery packs which are differentiated by their proprietary battery management system (BMS) and thermal management technologies. The company is near completion with a new advanced production facility that will increase its annual battery production capacity to 500 MWh, equivalent to approximately 10,000 battery packs.

The new battery production plant covers an area of 3000 m2 – with the possibility to expand to 4,000 m2 – and incorporates a fully automated battery assembly process and cleanroom. To remain on the forefront of the industry, ELEO said the facility will house high-tech R&D labs to further develop the battery technology. There is also room for various test facilities, paddocks, assembly, and warehousing. The building will run on renewable energy thanks to the large solar array on the rooftop.

Source: New Power Progress

PSR Analysis: ELEO's battery management system (BMS) and modular battery units will contribute significantly to the electrification of Yanmar's off-road equipment.

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Yanmar is a leading power equipment company with a broad product lineup spanning multiple segments, including agricultural machinery, construction machinery, and marine equipment, and their Maibara R&D Center is a center for electrification, fuel cells, low fuel consumption, clean and alternative energy technologies, and the reliability and electronic they have already been engaging basic research and development of control technology.

The electrification of off-road equipment is a different challenge from that of on-road equipment. Basically, longer run time and much higher output are often required for off-road applications than for on-road equipment.

Developing electrified products that meet the more difficult demands of the market is a major challenge and bringing in a start-up company with high expertise and technology in the key component, the battery, seems quite appropriate. With this acquisition, Yanmar will further accelerate the development of electric products.
PSR

極東 > 日本レポート:

小室 明大 – 極東及び東南アジア リサーチアナリスト

ヤンマー、高いバッテリー技術を持つオランダのELEOを買収

ヤンマーホールディングス株式会社は、バッテリー技術会社であるELEO Technologies（本社：オランダ・ヘルモンド市）の株式の過半数を取得したと発表した。ヤンマーは、ELEOの先進的で拡張性のあるモジュール式電池技術を統合することで、オフロード車向けにカスタマイズしたソリューションを提供し、電動パワートレインの能力をさらに高めると述べている。

なお、ヤンマーパワーテクノロジー株式会社の一員としてヤンマーグループに加わった後も、ELEOは自社ブランドのもと、現在の所在地であるオランダ・ヘルモンドで独立した事業体として事業を継続する予定とのこと。

2017年に設立されたELEO Technologiesは、独自のバッテリーマネジメントシステム（BMS）と熱管理技術によって差別化された先進的なモジュール式バッテリーパックを開発・生産している。同社は、新たな先進的な生産設備の完成を間近に控え、年間バッテリー生産能力を約 10,000 個に相当する 500 MWh に拡大する予定だ。

新しい電池生産工場の敷地面積は 3000 m2 （4000 m2 まで拡張可能）で、完全自動化された電池組立工程とクリーンルームが組み込まれている。ELEOは、業界の最前線に立ち続けるために、この工場には電池技術をさらに発展させるためのハイテク研究開発ラボを併設すると述べている。各種試験設備、パドック、組み立て、倉庫のためのスペースも確保されている。屋上に設置された大規模な太陽光発電設備により、再生可能エネルギーで稼働する予定だ。

出典: New Power Progress

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Far East Report

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PSR 分析: ELEOが持つバッテリーマネジメントシステム（BMS）とモジュール式バッテリーユニットは、ヤンマーのオフロード機器の電動化に大きく貢献するだろう。

ヤンマーは農機を筆頭に建機、舶用機器などの複数のセグメントにまたがった幅広い商品ラインアップを持っているパワー機器のリーディング企業であり、滋賀県米原市の中央研究所では電動化や燃料電池、低燃費・クリーン・代替エネルギー対応技術、そしてそれらを支える信頼性・電子制御技術の基礎研究開発にすでに取り組んできた。

オフロード機器の電動化はオンロードのそれとはまた異なる難しさがある。基本的にオンロード機器よりも長い駆動時間とはるかに高い出力が求められることが多い。市場からの難易度が高い要求を満たす電動製品の開発は大きな挑戦であり、キーコンポーネントであるバッテリーの高い専門性と技術を持つ新興企業を取り込むのは極めて適切に見える。

この買収でヤンマーは電動製品の開発をさらに加速させるだろう。そしてその流れは他メーカーにも波及していく。**PSR**

Far East: South Korea Report

By Akihiro Komuro, Research Analyst, Far East and Southeast Asia

Korea To Increase EV Battery Material Production

Korean materials giants are rushing to increase production of battery materials for EVs. Lotte Chemical plans to invest 160 billion yen to build plants for electrolytes and other materials in Korea and the U.S. LG Chem and POSCO have also announced plans to increase production. The three major Korean battery manufacturers, including LG, have active investment plans, but they are lagging their Chinese counterparts in the upstream area of battery materials. Materials companies are also increasing their supply capacity to compete with the Chinese.

Lotte Chemical, a major petrochemical company, will build a new plant for organic solvents for electrolytes in its own plant. The company will build a new factory with a total investment of 602 billion won, aiming for production by the end of 2023. The company is also considering building a plant related to electrolyte and cathode materials in Louisiana, U.S. It has begun coordination with local governments and other related parties in anticipation of starting production in 2025. The investment is expected to be in the order of 100 billion yen.

LG Chem is also planning to invest 6 trillion won over the next five years in battery materials to mass produce NCMA cathode materials by 2025. POSCO and LG have also begun to secure upstream resources. POSCO has acquired mining interests in a lithium Salt Lake in Argentina, while LG has signed a long-term purchasing contract with an Australian resource company.

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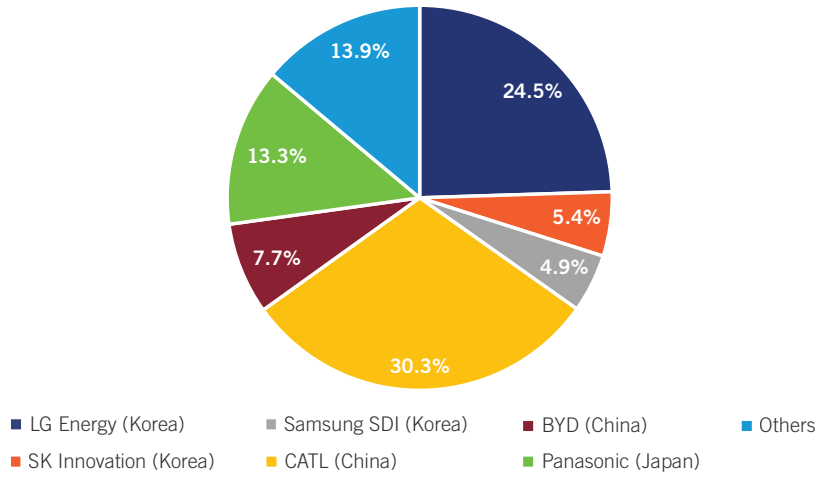
Chinese battery material manufacturers are growing rapidly, led by CATL and BYD, and are also expanding business with Korean and Japanese battery manufacturers.

Batteries account for 30% of the cost of EVs. Furthermore, looking at the cost structure of automotive batteries, the cathode materials used by POSCO and LG Chemical account for 58% of the cost, making them an important component.

Chinese battery material manufacturers are growing rapidly, led by CATL and BYD, and are also expanding business with Korean and Japanese battery manufacturers. The supply chain for EVs, from battery materials to batteries to finished vehicles, is being concentrated in China. In contrast, although the three major Korean battery makers account for about one-third of the market share for automotive batteries, they are currently lagging in battery materials.

Global Share of Automotive Batteries (2021 Jan-Aug)



Source: The Nikkei

PSR Analysis: The demand for a stable supply of batteries from complete vehicle manufacturers is growing stronger by the day. This is due to the uneven distribution of mineral resources used to make batteries and the growing risks in the international situation, such as friction between the U.S. and China and war between Russia and Ukraine. The establishment of joint ventures by GM, Ford, Stellantis with Korean battery companies is an indication of their desire to receive a long-term, stable supply of batteries.

The automotive industry in any country is the pillar of its manufacturing industry, and as the world moves toward EVs in the future, how to make and supply batteries and procure materials will become extremely critical issues.

Japan is trailing China and South Korea in terms of volume, and it will be difficult to recover from this. It appears to be betting on all solid-state batteries and fuel cells. Given China's enormous domestic demand, the volume for its own EVs alone will be substantial. The Korean battery industry will play a growing role in meeting demand in Europe and North America, the so-called liberal camp. **PSR**

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極東 > 韓国レポート:

小室 明大 – 極東及び東南アジア リサーチアナリスト

韓国勢、EV電池材も増産　「川上」強化で中国勢追う

韓国素材大手がEV向け電池材料の増産を急ぐ。ロッテケミカルは1600億円規模を投じて韓国や米国で電解液などの工場建設をめざす。LG化学やポスコも増産を表明した。韓国勢はLGなど電池大手3社が活発な投資計画を持つが、川上分野の電池材料については中国勢に後れを取っている。素材各社も供給能力を高めて中国に対抗する。

石油化学が主力のロッテケミカルは、自社プラント内に電解液用の有機溶媒工場を新設する。総投資額6020億ウォンで新棟を建てて2023年中の生産を目指す。

米ルイジアナ州でも電解液や正極材関連の工場建設を検討する。2025年の生産開始を見越して自治体など関係先との調整を始めた。投資金額は1000億円規模となる見通しだ。

LG化学も電池材料に今後5年間で6兆ウォンを投じる計画を持つ。NCMA正極材を2025年までに量産する。ポスコとLGは上流の資源確保にも乗り出している。ポスコはアルゼンチンのリチウム塩湖の鉱山権益を取得し、LGはオーストラリアの資源会社と長期購買契約を結んだ。ニッケルやコバルト価格が高騰しており、EV普及拡大を見越した資源確保が必要になっているためだ。EVの原価に占める電池の比率は3割に達する。さらに車載電池の原価構造を見ると、ポスコやLG化学が手掛ける正極材が58%を占める重要部材だ。

中国の電池材料メーカーは、CATLやBYDをけん引役として急成長しており、韓国や日本の電池メーカーとの取引も広げている。電池材料から電池、完成車というEVの一連のサプライチェーンが中国に集積されつつある。これに対し、韓国勢は車載電池では大手3社で約3分の1のシェアを占めるものの、電池材料では後れを取っているのが現状だ。

出典: 日経

PSR 分析: 完成車メーカーの電池の安定供給要請は日に日に強まっている。電池の材料となる鉱物資源は偏在していて、米中摩擦やロシアとウクライナの戦争など、国際情勢上のリスクが大きくなっているためだ。韓国は半導体と共に電池産業を国の基幹産業として育てていこうという意思があり、政府の強力なバックアップを背景に成長を続けている。GMやフォード、捨てランティスなどが韓国電池企業と相次いで合弁会社の設立をしたのは、電池の長期的かつ安定した供給を受けたいというメーカー側の意志の現れだ。

どの国でも自国の自動車産業は製造業の柱であり、今後世界がEVに突き進んでいく中、電池をどう作り、どう供給し、材料をどう調達するか、が極めてクリティカルな命題になっていくのは明らかだ。日本は中国や韓国に量では差をつけられており、ここからの挽回は難しい。全固体電池や燃料電池に賭けているよ

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うにも見える。中国は内需が莫大であることから、自国のEV向けだけでも相当な数になるだろう。いわゆる自由主義陣営の欧州や北米の需要に向けて韓国の電池産業が担う役割は大きくなっていくだろう。**PSR**

Southeast Asia: Thailand Report

By Akihiro Komuro, Research Analyst, Far East and Southeast Asia

Thai Incentive Program to Promote EVs, Starting in 2022

The Thai government plans to introduce an incentive program to promote EVs starting in 2022. The program will focus on providing subsidies to lower sales prices and reducing excise and import taxes. Automakers taking advantage of the program will be required to produce EVs locally from 2024 onward.

According to local media, the subsidy is 70,000 to 150,000 baht per vehicle, depending on the model and battery capacity. The excise tax on purchases will be reduced from the current 8% to 2%. Import duties will be reduced by 20-40% depending on battery capacity and sales price. The current maximum tariff rate is 80%, but the trade agreement will impose no tariff on Chinese-made products and 20% on Japanese-made products. Japanese-made products are also expected to be tariff-free if they meet the conditions. The current sales prices of imported cars vary from about 1 million baht for EVs from China's SAIC Motor Group and Great Wall Motor to about 1.5 million baht for Nissan Motor's LEAF at campaign prices.

Thailand, the largest automobile producer in Southeast Asia, has set a goal of having 30% of its domestically produced cars be EVs by 2030. Japanese car companies, which account for 90% of the production share, manufacture gasoline and hybrid vehicles. In addition, Chinese automakers import EVs from China and have yet to produce them locally.

Source: The Nikkei

PSR Analysis: According to the Land Transport Department of the Thai Ministry of Transport, the number of newly registered EVs in the country (excluding motorcycles and including commercial vehicles such as trucks and buses) in 2021 was about 43,500 units. This is a significant increase of 41% over the previous year.

The breakdown was as follows: HEVs and PHEVs combined grew by about 40% YOY to approximately 41,400 units, and BEVs by about 50% to approximately 2,100 units. Meanwhile, the overall share of EVs in new vehicle sales (approximately 760,000 units) in 2021 is about 6%, while the share of BEVs is about 0.3%. In other words, the share of EVs in domestic sales is not high at present. It is expected to take some time before EVs are widely distributed in the Thai market.

Although internal combustion engine vehicles currently dominate the market, the government's move to tighten environmental regulations may encourage the

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Southeast Asia Report

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The Thai government is pushing forward to become an EV powerhouse in all areas, including tax incentives to attract foreign investment, subsidies for EVs, and stricter environmental regulations.

spread of EVs. For example, the Ministry of Industry has announced that domestic automakers and dealers will be required to produce and sell vehicles that meet the Euro 5 emission standard by 2021, while HEVs and PHEVs will be required to meet the even stricter Euro 6 standard. The background to the introduction of these regulations is the problem of air pollution.

The main measures to promote EVs by type of vehicle are:

- **Passenger cars** with a retail value of less than 2 million baht: Subject to domestic production, (1) import duties on finished vehicles and related parts will be reduced by up to 40% from 2022 to 2023, (2) the excise tax rate on eligible vehicles will be reduced from 8% to 2%, and (3) a maximum subsidy of 150,000 baht will be provided.
- **Pickup trucks:** For domestic producers only, (1) the excise tax rate will be reduced from 10% to 0%, and (2) a maximum subsidy of 150,000 baht will be granted.
- **Motorcycles:** A subsidy of up to 18,000 baht will be given to motorcycles of 150,000 baht or less.

Through these promotion measures, Thailand hopes to achieve its goal of increasing the domestic production ratio of EVs to 30% by 2030. Prior to the aforementioned EV promotion measures, the Board of Investment of Thailand (BOI) announced in January 2021 new incentives for investment in EV production, including an 8-year CIT exemption for BEV production if the investment is 5 billion baht or more and the company or its supplier manufactures four key components, including batteries. The BOI has indicated that it intends to enhance EV-related benefits in subsequent years.

The Thai government is pushing forward to become an EV powerhouse in all areas, including tax incentives to attract foreign investment, subsidies for EVs, and stricter environmental regulations. **PSR**

東南アジア > タイレポート:

小室 明大 – 極東及び東南アジア リサーチアナリスト

タイ、EV普及へ新奨励策 2022年から補助金・減税

タイ政府は2022年からEVの普及に向けた新しい奨励制度を導入する。販売価格を引き下げるための補助金支給や、物品税と輸入関税の引き下げが柱となる。奨励制度を利用する自動車メーカーには、2024年以降にEVの現地生産を義務づける。現地メディアの報道によると、補助金は車種やバッテリーの容量に応じて、1台当たり7万～15万バーツ（約25万～54万円）を支給する。購入にかかる物品税は現行の8%から2%に引き下げる。輸入関税はバッテリー容量と販売価格に応じて20～40%引き下げる。現在の最大関税率は80%だが、貿易協定により中国製は無関税である一方、日本製は20%が課されている。日本製も条件を満たせば無関税になる見通しだ。輸入車の現在の販売価格は中国の

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Southeast Asia Report

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上海汽車集団や長城汽車のEVで約100万バーツ、日産自動車の「リーフ」のキャンペーン価格で約150万バーツと差が出ている。東南アジア最大の自動車生産国であるタイは、2030年に国産車の3割をEVとする目標を掲げる。生産シェアの9割を占める日本車各社はガソリン車とハイブリッド車を製造している。中国勢もEVは中国から輸入しており、まだ現地生産していない。

出典: 日経

PSR 分析: タイ運輸省陸運局によると、2021年のEVの国内新規登録数（二輪車を除く、トラック・バスなどの商用車を含む）は約4万3,500台。前年比で41%増と、大幅に伸長した。内訳は、HEVとPHEVの合計が前年比約40%増の約4万1,400台、BEVが約50%増の約2,100台だった。一方、2021年の新車販売台数（約76万台）に占めるEV全体のシェアは約6%、BEVのシェアは約0.3%だ。すなわち、国内販売に占めるEVの割合は現時点で高いとは言い難い。タイの市場にEVが広く流通するには、しばらく時間を要する見込みだ。現時点で内燃機関車が圧倒的なシェアを占めているわけだが、政府による環境規制強化の動きがEV普及を後押しする可能性がある。例えば、工業省は国内の自動車メーカーと販売業者に対し、2021年までに欧州排出ガス規制「ユーロ5」に適合する自動車を生産・販売するとの方針を示した。HEVとPHEVに関しては、さらに厳しい「ユーロ6」への適合が求められる。このような規制導入の背景には、大気汚染問題がある。

車種別の主なEV振興策は、次のとおりだ。

小売価格200万バーツ未満の乗用車：国内生産を条件として、(1)2022年から2023年に完成車や関連する部品に対する輸入関税を最大40%引き下げ、(2)対象となる車両の物品税率を8%から2%に引き下げ、(3)最大で15万バーツの補助金を交付。

ピックアップトラック：国内の生産者だけを対象に、(1)物品税率を10%から0%まで引き下げ、(2)最大で15万バーツの補助金を交付する。

二輪車：15万バーツ以下の二輪車に対し、最大で1万8,000バーツの補助金を交付する。

これらの振興策を通じて、タイは2030年にEVの国内生産割合を30%にする目標の達成に向け、全力で取り組む方針だ。既述のEV促進策に先行して、タイ投資委員会（BOI）は2021年1月、EV生産投資にかかる新たな恩典を公表した具体的には、投資額が50億バーツ以上かつ自社またはサプライヤーがバッテリーなど4つの重要部品を製造する場合は、BEV製造に係る法人所得税を8年間免除する。PHEV製造の場合は、法人所得税を3年間免除する。BOIは、その後もEV関連の恩典を充実させる意向を示している。

外資誘致の税制優遇、EVへの補助金、環境規制の強化など、全方位的にタイ政府はEV強国を目指して突き進んでいる。**PSR**

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India Report

By Aditya Kondejkar, Research Analyst – South Asia Operations.

Maruti Suzuki To Build EV-Battery Plant

Aditya Kondejkar

The development work has already been started on a project codenamed YY8 planned for 2024-2025.

Source: *Economic Times.* **Read The Article**

Major auto players in India like Tata Motors, MG Motors and Hyundai have already announced their investment plans in the electric vehicles sector, there wasn't any formal announcement from Maruti Suzuki, India's largest automaker. But now, the penny has dropped.

Suzuki Motor, parent of Maruti Suzuki, says it has signed a Memoranda of Understanding (MoU) with the Gujarat State government, and plans to invest Rs 10,440 crore in there to build an EV and battery factory. The MoU was signed at the India-Japan Economic Forum held in New Delhi.

"Suzuki's future mission is to achieve carbon neutrality with small cars," said Toshihiro Suzuki, President, Suzuki Motor Corporation. "We will continue active investment in India to realize self-reliant India (Atma-nirbhar Bharat)."

PSR Analysis. Under the plan, Suzuki Motor Corporation's wholly-owned company Suzuki Motor Gujarat Pvt Ltd (SMG) will invest Rs7,300 crore for the construction of a battery plant near SMG's automobile manufacturing unit by 2026. SMG will invest another Rs3,100 crore for ramping up production capacity for electric vehicles by 2025. The company is expected to launch its first electric vehicle by 2025.

The move is significant since the carmaker has been struggling for several years in retaining its dominance largely as a result of missing the bus when it comes to moving into India's fast growing SUV segment.

Through the course of this financial year, Maruti Suzuki has seen its market share dwindle; the company now holds about 43% of the market, down from about 50% in recent years. In contrast, Kia Motors and Tata Motors have significantly improved their market share. **PSR**

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India Report

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Russia Report

By Maxim Sakov, Market Consultant, Russia Operations

Editor's Note: *Power Systems Research has paused all research and business development activities in Russia. We have maintained a presence in Russia since 2013 to bring important updates to our clients about the powered equipment markets within Russia. We are monitoring the current situation on a daily basis and hope to again establish this presence when the conflict with Ukraine is resolved. Please contact us at* ***info@powersys.com*** *if you have questions regarding business conditions in Russia. Thank you.* **PSR**

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