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## Alternative Power Report

By *Guy Youngs*, Forecast & Adoption Lead



*Guy  
Youngs*

### CATL Expands Battery Market Share Lead in 2023

*CleanTechnica's* 2023 provisional report shows a 40% growth in demand for lithium-ion batteries in the automotive sector, reaching 712 GWh. CATL and BYD lead the market, with CATL holding a 34% share due to its successful partnerships and innovative battery technologies. BYD moved into second place with 16% share, up from 14% in 2022, replacing LG, which slid to third place with a 15% share. It had 17% in 2022. BYD grew 59% YoY.

CATL produced 243,000 units in 2023, up from 164,000 units in 2022. BYD produced 116,000 units in 2023, an increase from 73,000 in 2022.

LG lost share in 2023 due to the lack of new orders, GM's troubled ramp-up of its new EVs, the end of life of some important volume models, and also the fact that volume from some clients, like Mercedes or Ford, is being diverted to the competition.

The sector's growth is driven by larger battery capacities in new EV models, and the top three manufacturers account for two-thirds of total battery deployment.

**Source:** *CleanTechnica* [Read The Article](#)

**PSR Analysis.** The global battery industry is expected to continue its rapid growth, driven by the expanding EV market and technological advancements. Companies like CATL and BYD are well-positioned to capitalize on this trend, but the industry must address challenges such as material scarcity and environmental impacts.

However, market dominance by a few companies could limit competition and innovation, and recent rapid growth may strain raw material supplies and manufacturing capabilities. The future success of the battery sector will hinge on balancing growth with sustainability and innovation.

### Electric Trucks Can Haul 100 Tons

Caterpillar and CRH have collaborated to test electric mining trucks capable of hauling up to 100 tons, aiming for sustainable heavy equipment solutions and decarbonization. It's the first time a truck this size has been used in the aggregate business. The electric 793 mining truck, capable of carrying 265 tons, features advancements such as autonomous hauling and regenerative braking, emphasizing its potential in safety, performance, and operational efficiency without immediate recharging needs. Electrek's analysis underscores the significant

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## **Alternative Power Report**

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reduction in carbon emissions and noise, highlighting the move towards a greener future in heavy machinery and mining industries.

**Source:** *Electrek* [Read The Article](#)

**PSR Analysis.** The integration of electric trucks in mining and heavy industries is a promising step towards sustainability. As technology advances and costs decrease, adoption is likely to increase, making electric heavy machinery a cornerstone in achieving net-zero emissions. The effectiveness of these trucks will depend on continuous improvements in battery technology, charging infrastructure, and regulatory support. In the long run, electric heavy trucks are poised to become a standard in the industry, significantly contributing to environmental conservation and operational efficiency.

Electric trucks significantly reduce carbon emissions and noise pollution, aligning with global decarbonization goals. Features like autonomous hauling and regenerative braking enhance safety and efficiency, potentially reducing operational costs over time. However, the initial high cost and infrastructure requirements for electric heavy trucks may hinder widespread adoption in the short term. There also may be challenges in reliability and performance in extreme conditions.

## **Daimler Aims for Hydrogen Milestone**

Daimler's GenH2 hydrogen trucks, powered by liquid hydrogen for an electric motor, are set to hit German roads in 2024. These trucks, boasting a hauling capacity of about 25 tons for over 1,000 kilometers on a full tank, integrate a propulsion system delivering 300 kilowatts, supplemented by a battery for an additional 400 kilowatts during high-demand situations like hill climbs. This initiative represents a collaborative effort with Air Liquide and Linde for H2 refueling services, leveraging advanced storage technology for higher energy density and operational efficiency.

**Source:** *Hydrogen Fuel News*. [Read The Article](#)

**PSR Analysis.** Hydrogen trucks provide environmental benefits since they produce zero emissions during operation, contributing significantly to reducing carbon footprint in the transportation sector. And with a range of over 1,000 kilometers on a single fill, these trucks can meet long-haul requirements, making them competitive with traditional diesel trucks.

There are infrastructure challenges associated with the deployment and success of hydrogen trucks which depend on the availability of hydrogen refueling stations. Building this infrastructure will require substantial investment and time. The initial costs of hydrogen fuel cell technology and infrastructure development are high compared to electric and diesel alternatives.

In the future, as hydrogen production becomes more sustainable and costs decrease, hydrogen trucks like Daimler's GenH2 could play a crucial role in

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## **Alternative Power Report** *Continued from page 3*

*Akio Toyoda, Toyota's chairman, has expressed skepticism about the widespread adoption of electric vehicles (EVs), estimating they will achieve only a 30% market share.*

decarbonizing freight transport. The collaboration with companies like Air Liquide and Linde to expand refueling infrastructure is a positive step towards this. However, the pace of adoption will depend on overcoming the current challenges of cost and infrastructure. Effective government policies and technological advancements could accelerate the transition, making hydrogen trucks a viable and environmentally friendly option for long-haul transport.

### **Toyota Maintains EV Market Skepticism**

Akio Toyoda, Toyota's chairman, has expressed skepticism about the widespread adoption of electric vehicles (EVs), estimating they will achieve only a 30% market share despite evidence of higher adoption rates in countries like Norway and China. This stance aligns with Toyota's continued focus on hybrids and fuel cell vehicles, contrasting with the rapid EV market growth and the aggressive EV strategies of competitors. Toyoda's comments reflect a cautious approach to EV adoption, diverging from industry trends favoring more substantial EV penetration.

**Source:** *Electrek* [Read The Article](#)

**PSR Analysis.** Toyota's strategy might pose challenges in maintaining its market position as the automotive industry shifts towards electrification. Adapting to EV trends and expanding their electric lineup could be crucial for Toyota's long-term success.

Toyota's emphasis on hybrid technology may cater to markets with insufficient EV infrastructure, but Toyota's conservative EV market share estimate may limit its competitiveness as global EV adoption accelerates. **PSR**

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## **North America Report**

### **Shell To Exit Light Duty FCEV Market in California**



*Chris  
Fisher*

*By Chris Fisher, Senior Commercial Vehicle Analyst*

As of Feb. 6, 2024, Shell permanently closed its seven light duty hydrogen fuel stations in California citing "hydrogen supply complications and other external market factors" for this decision. According to the below MOTORTREND article, this leaves 17 stations operational (although several are offline at the time of this writing) in the Bay Area, and just one in the Sacramento area.

Shell had already told industry outlet **Hydrogen Insight** that it would stop building any of the 48 new California stations it had planned—a significant number for the state—and that the company "made the decision to permanently close its light duty station network in California in early 2024."

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**North America Report**  
*Continued from page 3*



**Source: *MOTORTREND***

**PSR Analysis:** The current cost of producing hydrogen along with very low adoption rates for light fuel cell vehicles does not justify maintaining--let alone expanding--the hydrogen service infrastructure for this segment. The stations are expensive to build, operate and maintain and getting a sustainable supply of hydrogen appears to be very difficult.

Hydrogen would be a great fuel source for meeting the zero-emission vehicle standards, but at this point there appears to be many barriers to adoption that will not be resolved quickly. To bring the cost down for hydrogen fuel, significant hydrogen production would be required. Basically, hydrogen production would need to “scale “up”.

Within the heavy truck segment, hydrogen fuel cell vehicles would be a good option for meeting zero-emission goals, but the same barriers exist that will delay mass hydrogen vehicle adoption at least through the rest of this decade. PSR



*Michael Aistrup*

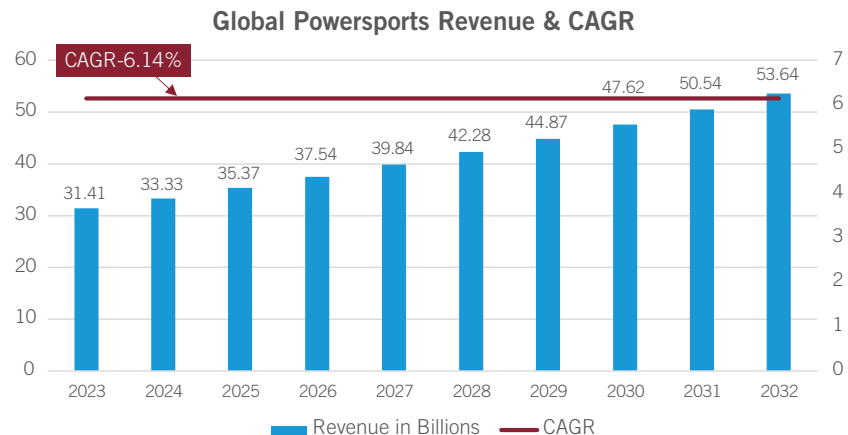
**Global Powersports Market Forecast To Exceed \$35 Billion in 2025**

*By Michael Aistrup, Senior Analyst*

According to Power Systems Research intelligence, the global powersports market size was valued at \$31.41 billion in 2023, and is projected to reach \$53.64 billion by 2032, growing at a CAGR of 6.1% from 2023 to 2032.

Power Systems Research is a Minnesota-based research firm that has been tracking global production of power equipment since 1976.

The recreational powersports segment represents activities ranging from off-roading, motocross, and all-terrain and side-by-side vehicle riding to on-road motorcycling and enjoying water equipment such as pontoon boats and jet skis.



*Source: Power Systems Research*

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## North America Report

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*The recreational powersports market continues to grow because of the depth and breadth of its products.*

**Powersports Market Trends.** A number of important trends are supporting growth in the global powersports market. These trends include:

- **Growing participation** in powersports events and competitions, such as cross-country, drag racing, wakeboarding, and road racing.
- **Increasing** consumer interest in outdoor activities, such as camping, off-roading, and water sports.
- **Implementation** of government policies that promote tourism and support the development of recreational areas and ATV trails.
- **Introduction** of electric powersports vehicles that are environmentally friendly, reduce carbon footprint, require low maintenance, and generate low noise.
- **Integration** of advanced safety systems in powersports vehicles, such as stability control and anti-lock braking system to enhance driver safety, improve performance, and prevent accidents.
- **Utilization** of smart connectivity features, such as Bluetooth, navigation, and touchscreen displays, which provides real-time information and improves the overall riding experience.

**Powersports Market Drivers.** The recreational powersports market continues to grow because of the depth and breadth of its products, ranging from snowmobiles in the winter to pontoon boats and jet skis on summer lakes.

- **Growing** disposable income
- **Expanding** adventure tourism options
- **Technological** developments that improve machine performance and convenience
- **Growing** consumer interest in outdoor activities
- **Government** funding and initiatives that support active tourism
- **Aggressive** marketing and promotions by OEMs and destinations

**Global PowerSports Market Restraints.** There are several factors that could restrict growth of recreational products. These include:

- **Increasing** high initial unit cost as OEMs add features
- **Expensive** maintenance expenses
- **Tightened** government operating rules
- **Growing** environmental concerns
- **Reduced** off-road riding locations demanded by consumer groups
- **Changing** weather conditions such as heat and reduced snow
- **Increasing** safety concerns caused by accidents and expanded machine power
- **Growing** economic uncertainty
- **Stiffer** competition from other recreational activities

The recreational powersports industry has experienced significant growth recently, with more individuals seeking riding experiences and outdoor recreation. The demand for e-power sports equipment is expected to continue rising as consumer interest in outdoor activities and adventures activities continues to grow and demand for features offered by electric vehicles increases. **PSR**



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## DATAPOINT: North America ATVs

# 281,000

By *Carol Turner, Senior Analyst, Global Operations*

281,000 units is the estimate by Power Systems Research of the number of ATVs expected to be produced in North America in 2024.

ATV is short term for All Terrain Vehicle. This vehicle commonly has four wheels and is designed to be driven off road. It seats one person, or sometimes two, one in front of the other. ATVs are utilized in a variety of activities that include recreation, sport and military related needs.

This product 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.

**Exports:** Mexico, up to 45% worldwide, and United States, up to 30% worldwide. As of 2022, approximately 60% of the ATVs Suzuki made in its Rome, GA, facility remained in the U.S. while the remainder were sold internationally.

**Market Share:** With combined plant totals of 26%, Polaris leads in production of 4-Wheeled ATVs in North America. In second position is Honda with 25%; third, is Yamaha with 16%.

**Trends.** In 2023, production of ATVs in North America decreased nearly 5% to about 270,000 units. Production is expected to gain 4% in 2024 to about 281,000 units.

Past recent years production decreases have been related to COVID-19, overstocks, reduced demand caused by an uncertain economic outlook and the growing popularity of side x side units (SxS or utility vehicles). Manufactures have discontinued less popular models/variants of ATVs and are concentrating on bestselling units.

Investor relations reports from Yamaha, Polaris Industries and Arctic Cat, indicate consumer discretionary spending is on the rise, supported by favorable gas prices.

Production is expected to increase due to current positive economic factors supported by the introduction of innovative products and technologies. Look for an additional increase up to 5-10% by 2030. **PSR**

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## Brazil/South America Report

By *Fabio Ferraresi*, Director Business Development South America

### VW To Invest US\$250 Million in Argentina by 2026



*Fabio Ferraresi*

Volkswagen announced Feb. 4, 2024, that it plans to invest US\$ 250 million in Argentina. by 2026. Primarily, the funds will facilitate the ongoing production of the Amarok medium pickup truck, coinciding with the imminent launch of its new generation. Additionally, resources will be allocated towards sustaining the production of the Taos SUV.

At the same time, a new stamping line will be established in Pacheco. The investment also will enable the commencement of Ducati Motorcycle production at the Córdoba unit, which currently focuses on Volkswagen transmissions.

**Source:** *Automotive Business* [Read The Article](#)

**PSR Analysis.** The investment reinforces the presence of VW in South America, since the biggest portion of the production is destined to be exported to other South American countries. The long term presence of VW in Argentina and other South American countries is key for its sustainable business in the region that contributes significantly to its global business.

### Cummins To Produce New Off Highway Engine at Guarulhos Plant

Cummins Brazil has announced the introduction of the new QSF 4.5 engine, boasting 210 horsepower at 2300 revolutions per minute (rpm), specifically tailored for the Off-Highway segment.

This 4-cylinder engine represents the pinnacle of power density in the Brazilian market. Start of production at the Guarulhos plant is scheduled to begin this April. The QSF 4.5 is a homegrown project designed by Brazilian engineers to cater to domestic market demands. It is derived from the F 4.5 engine used in the automotive sector by Cummins.

The new 4-cylinder QSF engine offers a combination of lightweight construction, compact design, and modern features. Its design prioritizes high performance at elevated rpm levels, while ensuring minimal fuel consumption and enhancing equipment uptime.

Notably, the QSF 4.5 engine boasts an extended maintenance interval of 500 hours, a significant advantage. Certified to meet MAR-1 standards and compatible with Biodiesel blends up to B20, the QSF 4.5 engine incorporates a newly developed fuel pump system exclusively engineered for industrial applications.

**Source:** *Revista M&T* [Read The Article](#)



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## South America Report

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*The Heavy Duty Trailers market has started the year 2024 with a record-breaking January, boasting 7,075 registrations of trailers and semi-trailers.*

**PSR Analysis.** Cummins targets the off-highway segment with interesting perspectives of growth in Brazil and South America. The off-highway segment has a large variety of models in smaller production volumes by model, where a non-captive engine design and production is the most common choice, especially when combined with local content requirements as it is for Brazil.

## Brazil Posts Record Heavy Duty Trailers Sales in January 2024

The Heavy Duty Trailers market has started the year 2024 with a record-breaking January, boasting 7,075 registrations of trailers and semi-trailers. This achievement reflects an impressive 8% surge compared to January 2023.

The exceptional performance of road implements at the outset of the year is predominantly attributed to the agribusiness sector.

**Source:** *Automotive Business* [Read The Article](#)

**PSR Analysis.** Notably, the initial months of the year coincide with critical harvest periods for key agribusiness commodities such as soybeans, corn, and sugarcane. Consequently, categories experiencing the most substantial growth in year-on-year comparisons include sugarcane farmers, with an increase of nearly 470%, and bulk carriers, which witnessed a notable uptick of 53%. Optimism pervades the road equipment segment for all of 2024, propelled by favorable forecasts for the industry's trajectory. **PSR**

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## Far East: Japan Report

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



*Akihiro  
Komuro*

## Toyota and Chiyoda Develop Hydrogen Production System

Toyota Motor Corporation and Chiyoda Corporation have announced the joint development of a hydrogen production system. The two companies plan to begin demonstration tests at Toyota's main plant in fiscal 2025 and hope to begin marketing the system around fiscal 2027.

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## Far East Report

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The system will produce hydrogen by electrolyzing water. It will have an output of about 5 megawatts and will be able to produce about 100 kilograms of hydrogen per hour. The new plant has a footprint of 6 meters wide by 2.5 meters deep, about half the size of a typical plant. By linking multiple plants, the production volume can be significantly increased.

The operation plans to reduce costs by using FC system components from Toyota's MIRAI FCV. In the demonstration, the hydrogen produced will be used on equipment at the Toyota plant.

**Source: The Nikkei**

**PSR Analysis:** If water could be electrolyzed to produce hydrogen, which could then be used to power mobile units, water could be used like gasoline. There is also the possibility of replacing oil, which is heavily dependent on the Middle East. Such a dream cannot be realized immediately of course, but the joint project between Toyota, which has a proven track record in FCV development, and Chiyoda Corporation, which has a track record in hydrogen energy plants, is worthy of attention.

While the system discussed in this announcement is not large enough to be installed in a mobile vehicle, and will be used at Toyota's plant, there is still potential for the technology to be used in future vehicles.

The value of new fuels such as hydrogen is being reassessed. For years, Toyota's chairman has stated that the enemy is not the engine, but CO2, and the company has continued to invest in all directions: engines, batteries, PHEVs, and FCVs. Of course, there are many negative opinions about hydrogen, but I think that we are not yet at the stage where we can determine whether hydrogen can be used or not. The budget for such a project is limited, and in this sense, it makes sense for Toyota, Japan's largest company, to do this. **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

### トヨタと千代田化工、水素製造システムを共同開発

トヨタ自動車と千代田化工建設は水素製造システムを共同開発すると発表した。両社の技術を組み合わせ、水素製造装置を小型化し効率性を高める。2025年度からトヨタの本社工場で実証実験を始める計画で、2027年度ごろからシステムを外販したい考えだ。

新システムでは水を電気分解して水素を生み出す。出力は約5メガワットで、1時間当たり約100キログラムの水素を製造することができる。設置面積は幅6メー

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## Far East Report

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トル、奥行き2.5メートルで、一般的な設備に比べ約半分の大きさに抑えた。複数の設備を連結させることで、製造量を大幅に増やすことも可能だという。

トヨタのFCV、MIRAIのFCシステム部品を流用することで、コストの低減を目指す。実証では、製造した水素をトヨタ工場内の設備で利用する予定だ。

**参考: 日経** (一部筆者により元記事内容を改編しました)

**PSR 分析:** 水を電気分解して水素を生み出して、それをモビリティの駆動力に使うことができれば、水をガソリンのように使用できるかもしれない。また、中東に大きく依存してきた石油を代替できる可能性もある。そんな夢のような話はもちろんすぐには実現できないが、FCVの開発で実績を持つトヨタと、水素エネルギープラントの実績を持つ千代田化工の共同事業は注目に値する。この発表で語られているシステムはモビリティに搭載できる大きさではなく、トヨタの工場内で使用されるとのことだが、それでも将来的なモビリティへの技術利用の可能性はあるだろう。BEV戦略の見直しがグローバルでトレンドになりつつあるなか、ハイブリッドを筆頭に水素などの新燃料の価値が見直されている。トヨタの会長は何年も前から「敵はエンジンではなくCO2である」と説明し、エンジン、バッテリー、PHEV、FCVと、全方向に投資を続けてきた。もちろん水素に否定的な意見も多くあるだろうが、現時点で水素が利用し得るか否かを判断できるステージには立っていないと筆者は考える。こうした事業の予算は限られており、そうした意味で日本最大の企業であるトヨタが行うことは理にかなっている。 **PSR**

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## Far East: South Korea Report

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

### Hyundai Motor Shifts EV Plans, Introduces Genesis Hybrid

Hyundai Motor Company is developing a hybrid vehicle for its Genesis luxury brand. The company had planned to focus on EVs and FCVs for the Genesis, which will be launched after 2025. The recent slowdown in the growth of the EV market has forced the company to change its strategy.

According to industry insiders, Hyundai Motor is developing a hybrid engine and related systems for the Genesis, which is expected to be launched in 2025. Hybrid models will be added to the mainstream GV80 and GV70 models. The company plans to expand its HV lineup under the Hyundai Motor and Kia brands as well, having decided to introduce HVs under its luxury car brands due to the risk of slumping sales if it continues to shift more toward EVs. Hyundai Motor's HV sales in 2023 were up 53% from the previous year to approximately 380,000 units.

**Source: The Nikkei**

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## Far East Report

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*Genesis is Hyundai Motor's flagship luxury brand, and the intention to introduce a hybrid here is likely a shift in strategy in response to the stalling of EV expansion, especially in the U.S. and European markets in the second half of 2023.*

**PSR Analysis:** Genesis is Hyundai Motor's flagship luxury brand, and the intention to introduce a hybrid here is likely a shift in strategy in response to the stalling of EV expansion, especially in the U.S. and European markets in the second half of 2023. As noted in last month's issue of PowerTALK, Hyundai Motor is aggressively trying to adapt its strategy to the newest market by selling its plants in China. This is a move that other automakers of the same size cannot easily make, and it is one of Hyundai Motor's strengths. **PSR**

## 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

### 現代自、EV転換にブレーキ 高級車にハイブリッド投入

現代自動車が高級車ブランド「ジェネシス」でハイブリッド車を開発していることがわかった。同社は2025年以降に投入するジェネシスはEVとFCVに絞るとしていた。足元でEV市場の成長が鈍化しており、戦略転換を迫られた格好だ。

業界関係者によると、現代自は2025年の発売を想定するジェネシス向けのハイブリッドエンジンや関連システムを開発しているという。主力モデル「GV80」や「GV70」などにハイブリッドモデルを追加する。現代自や起亜のブランドでもHVの品ぞろえを拡充する計画という。EVシフトを強めていては販売低迷に陥るリスクがあると判断し、高級車ブランドでのHV投入を決めた。現代自の2023年のHVの販売は前年比53%増の約38万台だった。

**参考: 日経** (一部筆者により元記事内容を改編しました)

**PSR 分析:** ジェネシスは現代自のフラッグシップといえる高級ブランドであり、ここにハイブリッドを導入する意図としては、2023年下半期に欧米市場を中心にEVの拡大が失速したことを受けての戦略転換だろう。先月号でも触れたが現代自は中国の工場を売却し、アグレッシブに戦略を最新の市場にフィットさせようとしている。このような動きは同規模の自動車メーカーにはなかなかとれない、現代自の強みはそこにある。 **PSR**

## Southeast Asia: Thailand Report

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

### Japanese Car Share Plummets in Thailand, China Gains Share

The share of Japanese automakers in Thailand's new car market, once considered a "stronghold for Japanese cars," is plummeting. This is due to the rapid adoption of electric vehicles due to the government's preferential policies and the rise of Chinese manufacturers focusing on electric vehicles. Thailand is also the largest automobile manufacturing base in Southeast Asia, and this could affect the entire regional

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## Southeast Asia Report

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market. According to a tally by Toyota Motor's Thai subsidiary, the nine Japanese giants will have a combined market share of 77.8% in 2023. They once held a 90% share, but the 2023 mark was 7.6 percentage points lower than the previous year.

In Thailand, companies that import EVs can receive a subsidy of up to 150,000 baht (about \$600,000) per vehicle and a tariff reduction of up to 40% if they sign a memorandum of understanding with the government. More than 10 companies, including Chinese EV giant BYD, have signed the MOU because of the lower selling price.

According to the Federation of Thai Industries, the number of EVs sold in Thailand last year increased sevenfold from the previous year to 73,568 units, and their share of the new car market jumped from 1.2% to 9.5%. The impact of the policy was evident, with BYD's sales volume increasing 98-fold to 34,432 units, and the share of Chinese-owned vehicles, which had been around 5%, reaching around 11%.

The main goal of the Thai government's preferential policy is to attract EV production bases. Companies that sign a memorandum of understanding will be required to produce more EVs in Thailand than they import, starting in 2024. The more each company increases its sales, the more production bases it can establish, and Chinese companies such as BYD and Changan Automobile are building factories.

Japanese automakers, on the other hand, have made limited moves. Last December, Honda announced that it had begun EV production in Thailand, but it has not announced a detailed production plan. Toyota, the only Japanese automaker to sign a memorandum of understanding with the Thai government, also began small-scale production of EVs late last year, but has not yet decided when it will begin full-scale mass production.

In an interview with Japanese media last December, Thai Prime Minister Seter Thawasin said, "Japan is lagging behind, and if we do not switch to EVs, we will be left behind," and urged all companies to take action. It is believed that the Thai government is becoming increasingly frustrated with the reluctance of Japanese companies.

### Source: Yomiuri


**PSR Analysis:** Rapidly advancing Chinese EV brands are cutting into Japan's stronghold in Southeast Asia. I have been warning of this risk for several years, and it is beginning to materialize. Gaining market share in Thailand and Indonesia, where the automotive industry is mature enough to have simplified parts supply chains, distribution networks, and import/export procedures, is extremely important as these are two of the few markets expected to grow.

However, Japanese machine builders have traditionally been slow to respond to such market changes. They watch the market carefully, determine what is best for the market, and then release their products when they are fully prepared. It is true that this approach has been successful in the past. However, there is no guarantee that it will work this time.

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On the other hand, a growing number of people in Europe and elsewhere are concerned about the possibility of BEVs becoming the sole focus of the market. It is not yet clear what will happen to the global market in the future, and it is not yet clear what direction Southeast Asia should take in this situation. **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

### タイで日本車シェアが急落、EV普及で中国が台頭

「日本車の牙城」とされてきたタイの新車市場で、日本勢のシェアが急落している。政府の優遇政策でEVが急速に普及し、EVに注力する中国メーカーが台頭してきたためだ。タイは東南アジア最大の自動車生産拠点でもあり、地域全体の市場に影響を及ぼす可能性もある。トヨタ自動車のタイ法人の集計によると、2023年の日本の大手9社のシェアは計77.8%だった。かつては9割のシェアを握っていたが、前年から7.6ポイント低下した。

タイでは、EVを輸入する企業が政府と覚書を結ぶと、1台あたり最大15万バーツ（約60万円）の補助金が支給され、関税も最大で4割引き下げられる。販売価格が安くなるため、中国のEV大手BYDなど10社以上が締結している。

タイ工業連盟によると、タイでは昨年、EVの販売台数が前年比7倍の7万3568台となり、新車市場に占める割合も1.2%から9.5%に急上昇した。政策の効果が表れた形で、BYDが販売台数を98倍となる3万432台に伸ばすなど、5%程度だった中国系のシェアは約11%に達した。

タイ政府の優遇策の最大の狙いは、EVの生産拠点を誘致することだ。覚書を結んだ企業は2024年以降、輸入した台数以上のEVをタイで生産することが義務づけられる。各社が販売を増やすほど生産拠点が整備される仕組みで、BYDや長安汽車などの中国勢が相次いで工場を建設している。

一方、日本勢の動きは限定的だ。ホンダは昨年12月、タイでEVの生産を始めたと発表した。詳細な生産計画は公表していない。日本勢で唯一、タイ政府と覚書を結んでいるトヨタも昨年末にEVの少量生産に乗り出したが、本格的な量産時期は未定という。

こうした状況に、タイのセター・タウィシン首相は昨年12月の日本メディアのインタビューで、「日本は出遅れている。EVに移行しなければ取り残される」と述べ、各社に対応を強く促した。消極的な日本勢にタイ政府がいらだちを募らせているとみられる。

**出典: 読売** (一部筆者により元記事内容を改編しました)

**PSR 分析:** 急進する中国系EVブランドは日本の牙城である東南アジアを切り崩していく。このリスクを私は数年前から指摘してきたが、それが現実になり始めている。部品サプライチェーン、販売ネットワーク、輸出入の手続きの簡素化

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On Jan. 20, 2024, Lingong Heavy Machinery Co., Ltd. and CATAL New Energy Technology Co., Ltd. signed a strategic cooperation agreement to jointly develop electric construction machinery.

など、自動車産業の十分な成熟が為されたタイとインドネシアにおけるシェア獲得は、今後伸長が期待できる数少ない市場であることから、極めて重要だ。

だが日本の機械メーカーは伝統的にこうした市場の変化に対する初動は遅い。じっくりと市場を観察し、何が最適かを見極めて、満を持して製品をリリースする。このやり方で過去成功してきたのは事実だ。だが、今回もそのやり方が上手くいくとは限らない。

その一方で、欧州などではBEV一辺倒になることに危機感を抱く人が増えている。今後グローバル市場がどうなっていくのかについてはまだはっきりとは見えておらず、こうした中で東南アジアもまだまだ進むべき方向は定まらない**PSR**

## China Report

By *Aditya Kondejkar*, Research Analyst – South Asia Operations.

### LGMG and CATAL Sign Strategic Cooperation Agreement



Jack  
Hao

On Jan. 20, 2024, Lingong Heavy Machinery Co., Ltd. and CATAL New Energy Technology Co., Ltd. signed a strategic cooperation agreement to jointly develop electric construction machinery.

Lingong Heavy Machinery is a leader in the global wide body mining truck and high-altitude operation platform industry and is also an active advocate and strong promoter of green, intelligent, international, and low-carbon environmental protection development in the engineering machinery industry.

CATAL is a leading global new energy innovation technology company, committed to providing first-class solutions and services for global new energy applications, and has a wide range of vehicle factory partners around the world.

As leading companies in their respective industries, Lingong and CATAL now have the opportunity to leverage their respective strengths, support each other, share resources, and collaborate in the development of energy electrification in the construction machinery segment.

They also will be able to promote the development of battery technology in construction machinery, and ultimately promote the comprehensive electrification, intelligence, and integration of the construction machinery industry.

The main features of this strategic agreement include comprehensive cooperation in the research and development of new energy mining vehicle electrification products, technological innovation, formulation of new energy engineering machinery industry standards, market promotion, and one-stop after-sales service.

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At the same time, both parties will jointly focus on the development and market promotion of overseas and large tonnage new energy mining products, providing technological leadership for global engineering machinery industry customers.

Success in the very competitive electrified products field requires that both parties lay a solid foundation for the common development of the new energy industry, and jointly promote and lead the high-quality development of the industry.

**Source:** *Construction Today* [Read The Article](#)

**PSR Analysis:** This cooperation accelerates the electrification process of the construction machinery industry, focusing on comprehensive cooperation in the supply of power batteries, hybrid mining trucks, research and development of new energy technologies and products, domestic and foreign market promotion, formulation of new energy construction machinery industry standards, and battery recycling.

It also focuses on the research and promotion of large tonnage new energy mining products. In the increasingly fierce competition for power batteries, CATL's business is gradually diversifying, from passenger cars to commercial vehicles, and gradually extending to off- road fields such as construction machinery. **PSR**

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## India Report

By *Aditya Kondejkar*, Research Analyst – South Asia Operations.



*Aditya  
Kondejkar*

### India FY25 Budget Is Driving EV Revolution

The Indian government's Budget for the fiscal year 2024-25 is emphasizing the automotive industry, with a particular focus on the electric vehicle (EV) ecosystem. The budget reflects a strong commitment to sustainability and green initiatives, aiming to position India as a leader in the global EV market.

This analysis delves into the key highlights and implications of the budget, drawing insights from industry leaders and experts. Here are highlights of Budget.

**EV Ecosystem Reinforcement:** The government's pronounced emphasis on bolstering the EV ecosystem through support for the manufacturing and charging infrastructure has been met with widespread acclaim. Finance Minister Nirmala Sitharaman's commitment to payment security mechanisms for e-buses underlines a strategic approach to encourage public transport electrification.

**Production-Linked Incentives (PLI):** The increased budget allocation for the Production-Linked Incentive (PLI) scheme signifies a significant push towards promoting domestic production of futuristic vehicle technologies. The move aligns with the government's vision for a greener future and increased self-reliance in the automotive sector.

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*The increased focus on the EV ecosystem, manufacturing, and charging infrastructure is poised to drive innovation and job creation.*

**Biogas Blending and Bio-Manufacturing:** The mandatory blending of compressed biogas into compressed natural gas for transport and piped natural gas reflects a commitment to sustainable energy sources. Additionally, the introduction of a new bio-manufacturing plan highlights a proactive approach to align manufacturing practices with environmental sustainability.

**Extension of Existing Incentive Schemes:** Notably, the budget falls short of extending existing EV incentive schemes such as FAME-II and FAME-III. The absence of continuity in these schemes raises questions about the government's long-term strategy for sustaining and accelerating EV adoption.

**Budget Cuts in FAME Scheme:** The reduction in the allocation for the Faster Adoption & Manufacturing of Electric Vehicles in India (FAME) scheme by 44.43% is a point of contention. Industry stake holders express concerns about the potential impact on ongoing EV adoption initiatives.

**Source:** *Hindu BusinessLine* [Read The Article](#)

**PSR Analysis:** The India Budget for FY25 marks a significant stride towards promoting a sustainable and green automotive future. The increased focus on the EV ecosystem, manufacturing, and charging infrastructure is poised to drive innovation and job creation.

However, the industry's optimism is tempered by concerns about the continuity of existing incentive schemes. As India charts its course in the global EV landscape, close collaboration and strategic policy adjustments will be keys to realizing the vision of a sustainable and thriving electric vehicle sector. **PSR**

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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 maintained an important presence in Russia from 2013-2022 to bring important updates to our clients about the powered equipment markets within Russia. We are continuing to monitor the current situation and hope to again establish this presence when the conflict with Ukraine is resolved. Please contact us at [info@powersys.com](mailto:info@powersys.com) if you have questions regarding business conditions in Russia. Thank you.* **PSR**

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