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Truck Production Index

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

Q2 2021 Truck Production Climbs 193.5%

Power Systems Research St. Paul, MN — The Power Systems Research Truck Production Index (PSR-TPI) increased 193.5% year-over-year (Q2 2020 to the Q2 2021), moving from 46 to 135. For the three-month period ended June 30, 2021, (Q1 2021 to Q2 2021) the TPI climbed 15.4%, increasing from 117 to 135.

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.

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TPI Report

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Overall, medium and heavy truck demand will finish the year on a strong note and continued strength is expected into 2022. On-going supply chain disruptions will continue to impact production throughout the rest of the year and possibly into 2022.



Chris
Fisher

Except for China, all regions are expected to experience solid commercial vehicle demand growth this year and into 2022. Chinese heavy truck demand is expected to decline this year primarily due to the implementation of the China VI emission regulations that adds cost to the vehicles but no significant improvement in fuel economy.



Jim
Downey

North America. In the United States, freight demand remains extremely strong and freight rates very high primarily due to high levels of consumer spending and the overall strong economy.

While the demand side is very strong the supply side is where the issues lie concerning medium and heavy truck production. The on-going issues with the supply chain are expected to continue for the remainder of the year and possibly into 2022 as OEM's continue to have difficulty sourcing various components such as semi-conductors.

While the 2021 class 8 truck order boards are mostly filled and orders for next year are also expected to be strong, there are some concerns surrounding higher levels of inflation. On-going supply chain disruptions, worker shortages and possible negative effects from high levels of government spending could fuel higher inflation moving forward. **PSR**

[Read The Complete Report Here.](#)

PSR Research Report

By *John Krzesicki*, Business Development Manager

Edge Computing Brings Data Closer To Home



John
Krzesicki

Cities, nationally and globally, are embarking on innovative efforts to harness the benefits of rapidly emerging technologies to improve citizens' quality of life, increase operational efficiency, and enhance economic vitality and sustainability.

These efforts often involve changing the nature of data storage and transfer, primarily by moving these steps from data storage "clouds" to local data centers closer to the application.

Since Power Systems Research began tracking global equipment manufacturers in 1976, its analysts have been aware of new technologies and electrification

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PSR Research Report

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Edge data centers also feature many micropower grids, not a small number of wide-spread grids that could disrupt large areas and hundreds of thousands of individuals if they fail.

trends such as these which can affect future markets. Today, we're closely following these changes in data transfer and storage.

We're especially interested in the two essential metrics of data handling change—volume and processing time—because the structure of data networks also is changing. In many cases, it's not practical to send vast amounts of data to the cloud to be processed and then wait for the results. Now, it's often necessary to have smaller data centers located near the activity, at the edge of the action, if you will.

Edge data centers also feature many micropower grids, not a small number of wide-spread grids that could disrupt large areas and hundreds of thousands of individuals if they fail.

There are growing advantages and applications for edge data centers.

Communities mainly benefit from their high-tech economy, as companies incorporate many of these new capabilities. The residents of these communities can take advantage of new technology and the talented workforce that expects its city to benefit from technology effectively.

A so-called smart city leverages advances in sensors, devices controllers, and instruments that are connected to the internet and other systems – essentially the Internet of Things (IoT) technologies – to produce data that can be analyzed to inform decisions, improve services and optimize operations.

Advances in analytics and machine learning can support the city in moving from reactive to proactive actions and eventually to predictive processes. Potentially, this approach could produce a bright future for large urban cities. So, what about rural communities?

When connectivity helps rural communities thrive, it produces multiple benefits for residents, businesses, states, and the nation as a whole.

Business. Businesses can access new, previously untapped markets—finding new customers or designing new products to meet the needs of emerging customer segments. Companies can provide flexibility for employees who may want to live in rural communities and telework, at the same time they tap into a broader talent pool and improve retention rates.

With access to new sources of talent, businesses can gain new perspectives, innovations, and ideas. Agribusiness players, for example, can easier access people who grew up on farms and understand the business needs of farmers.

Finally, connectivity can enable new ways of working and increase access to technologies that streamline operations, increase efficiencies, and create more overall productivity. These improvements could transform businesses and even whole industries.

States. States could be better positioned to serve the needs of their people, gaining insights into unique community requirements and matching delivery

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PSR Research Report

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of critical programs and funding to people. Continuous access to network infrastructure can improve interoperability and interconnectivity between rural and urban areas, better connecting regions across states.

Rural residents can stay virtually and physically connected with nearby urban hubs and suburban towns that offer unavailable opportunities at home, reducing flights from rural areas. Rural and urban interoperability can create opportunities for “smart regions” that share best practices and collaborate on common issues. Also, states can close gaps in critical areas of development for distressed pockets of the state along several dimensions (such as workforce development, health care, and education), producing a higher-skilled labor force that can work with complex technology to drive innovation and growth ultimately.

The nation. Improving quality of life and employment options may help reduce poverty rates and associated epidemics. By better engaging communities and residents, the federal government can improve its feedback loop, helping it to improve customer service and better match federal programs to people’s needs.

These communication channels could also help give people living in rural areas a greater voice in government. Finally, the concept of intelligent rural communities could drive benefits for the entire nation, increase efficiencies in industries such as agriculture, manufacturing, education, and health care to stimulate the economy and improve the gross domestic product.

In short, helping rural America helps the nation and enhancing connectivity could help millions of Americans thrive and pave the way for rural communities to prosper. **PSR**

DATAPOINT: NA Excavators

19,900

By Carol Turner, Senior Analyst, Global Operations

19,900 units is the estimate by Power Systems Research of the number of Excavators to be produced in North America in 2021.

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 combined plant totals of 47.5% Caterpillar leads in production of excavators in North America. In second position is Doosan Bobcat with 22%; third, is Deere-Hitachi with 14.5%.

Exports: Collectively, up to 30% worldwide.

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Datapoint

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Production of excavators in North America decreased 9% in 2020, largely because the global pandemic made 2020 challenging across most industries.

Trends: Excavators are heavy pieces of equipment designed for large scale projects for a variety of sectors that include construction, mining, and industrial activities. Despite the recent lull in production, excavators are a popular device for construction activities.

Production of excavators in North America decreased 9% in 2020, largely because the global pandemic made 2020 challenging across most industries. The off-highway segments (agricultural, construction and industrial) saw dramatic production drops in 2020 compared to 2019.

Another factor in the recent decline is the fact that purchasers are choosing backhoe loaders that are more versatile than excavators. Expect production to gain an additional 3% by 2025.

As fabrication has resumed, assembly is back on track for 2021 with an expected gain of 9% from last year to a total of about 19,900 units.

One example of the rebound: Doosan Bobcat North America, a global leader in the compact equipment industry, is celebrated the completion of a \$26 million expansion at its manufacturing facility in Litchfield, Minn., in Q2 2021. The 15-month project nearly tripled the size of the facility, from 70,000 square feet of office and manufacturing space to nearly 200,000 square feet. **PSR**

North America Report

Strong Post-Pandemic Growth Expected into 2022-23

By *Yosyf Sheremeta, PhD, Director, Product Management & Customer Support*




*Yosyf
Sheremeta*

SUMMARY. After the GDP declined 3.5% last year, the worst performance in almost 75 years, the US economy is set for a strong comeback. There are many reasons to be optimistic about the economy for the next few years, including strong readings of macro-economic factors combined with the economic cycle reset backed by government initiatives and policies.

Our positive outlook is based on the reviews of key economic indicators, including GDP, unemployment, and inflation.

During H1 2021, we witnessed a strong level of activities and a rebound for many industries. As local governments eased lockdown restrictions, service-oriented industries gained traction and that translated to an overall increase of economic activities across many industries.

We expect this level of rebound to continue and we now expect even stronger overall growth for 2021. The US economy is on track to reach or even surpass the growth level of 1984 – the highest one since 1950s. In the near term, consumer

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North America Report

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spending will help drive demand and support the strong growth trend.

Many factors contribute to such upbeat projections. Strong macro-economic data provided a solid basis for future growth. Government stimulus to consumers as well as businesses combined with investments into a sustainable economy, and technology development will continue to drive demand in the near term. A future infrastructure bill will also serve as a catalyst to generate new demand and continue the economic expansion for several years.

We have mentioned the electrification trend of vehicles and equipment in the past. We expect these developments and trends to accelerate in the near future. In particular, we expect new developments in battery technology, and also with hydrogen power. The impact of this electrification will touch a majority of the applications/products that we track in our databases. We already see viable alternatives to ICE powered products entering the market during the next 12-36 months, and this trend will accelerate in the mid-term.

We continue to see a favorable fiscal policy and a stable economic situation in the US. At this time, we expect it will take at least until 2022-2023 before GDP surpasses its Q4 2019 peak. Fiscal policy with near zero interest rates, which government has promised to keep in place for the next 12 months, will provide a good platform for the economic recovery and allow us to look optimistically into 2022. We believe this is a critical factor as it re-assures both consumers and businesses of low interest rates and it helps drive demand for goods and services. Even then, once the interest rates are lifted from the flat zero levels, we believe they will still provide favorable conditions to continue economic expansion.

The key factor and the foundation to the economic recovery is strong fiscal policy. With extra cash in the hands of US consumers, combined with low interest rates, and strong growth expectations, inflation concerns have re-surfaced in H1 2021. As of June 2021, annual inflation for the 12 months ending in May was at 4.99%. In just one month the inflation rate increased by 0.83% from 4.16% as of April 2021.

Increased inflation concerns have put a break on stock market growth, especially to growth-oriented companies such as the technology sector. However, given the current macroeconomic levels, we do not expect any significant change to fiscal policy (such as interest rate increases) this year. Current conditions provide a solid outlook and reassurance for future recovery and growth at least for another 12-18 months.

We have mentioned significant improvements on the employment market during last 6-9 months, however the trend experienced a slowdown in early Spring 2021. The latest readings from June 4, 2021, showed the unemployment rate at 5.8%. While the rate improved from Q1 2021, (April 2021) at 6.2%, it is still significantly higher than the pre-pandemic rating in February 2020 of 3.5%.

The number of unemployed persons as of June 2020 was at 9.3 million vs. 10 million in March 2021 and 5.7 million in February 2020. We expect the employment market to continue to improve in the H2 2021; it may take at least

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North America Report

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another year and a favorable economic situation to fully recover employment to the rate of 3.5%-4.5%. The labor force participation rate was little changed at 61.6% in May 2021.

Housing starts statistics experienced a slowdown in Q1 2021, however they rebounded during Q2 2021 at 1.572 million in May of 2021. The building materials market continued to experience pricing pressure as well as supply chain issues which slowed growth. We expect this trend to continue in the near future. Another factor that contributed to the slowdown was rising mortgage rates, primarily driven by a rise in Treasuries. However, given the strong outlook for the economy, we expect the housing market to remain strong, which will directly help drive growth in segments like Construction, Industrial and L&G.

Across all market segments, we expect overall total OEM equipment production numbers to rebound in 2021 from 2020 losses. Cumulatively, OEM production in the US experienced a decline of 13.1% in 2020 vs. 2019. We expect growth in 2021 of 8.0% vs 2019. This estimate is slightly lower by 0.1% than the previous estimates in Q1 2021 at 8.1%, mainly due to the slower recover pace in the Spring of 2021. The key driver of the growth in 2021 will be strong fiscal policy and accelerated growth in H2 2021. At the same time, the recovery and growth will vary considerably among segments.

As expected long before the pandemic, the Medium and Heavy Vehicles Segment was due for a slowdown and a reset. This segment in 2020 suffered the worst performance among all industry segments; however, it will also lead the recovery in 2021 and will post the highest growth rate at 30.5% vs significant losses in 2020. We continue to see significant improvements in this segment with sustainable demand over the next 18-24 months. Furthermore, we estimate an additional gain of 6% in 2022 vs 2021.

Consumer-oriented segments experienced significant market deterioration with the Passenger Car segment leading the decline at -25.1% in 2020 vs 2019. The next leading segment was Minivan/SUVs at -16.3% in 2020 vs 2019. We expect passenger car production to remain flat in North America while Minivan/SUVs to regain ground in 2021 at 10.1%.

As economic conditions improved during the last three months, we expect a rapid increase in demand for products to follow in most markets, starting in H2 2021. At this time, we forecast year 2021 growth to be in the low single digit vs 2020 at 8.0%, and we see an 9.7% additional gain in 2022 vs 2021. Overall, for all OEM equipment sectors, we expect it will be 2023 or 2024 before the total volume units produced in North America reaches pre-pandemic levels of Q4 2019.

Here are our views on several key industrial segments.

AGRICULTURAL. As the post-pandemic recovery continues, we expect the Ag segment to follow other industrial and heavy equipment industries. In 2021, we project the growth of agricultural equipment and machinery in North America to be at 9.8% vs 2020. Additional growth is projected for 2022 at 13%. The

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Our most recent overall projection on construction equipment and machinery production is positive at 8.9% in 2021 vs 2020, which is slightly higher than Q1 2021 estimates.

recovery will be steady, and we expect levels of production in 2022 to reach those of 2016-2017.

CONSTRUCTION EQUIPMENT. We expect the Construction machinery segment to follow strong economic recovery patterns. Our most recent overall projection on construction equipment and machinery production is positive at 8.9% in 2021 vs 2020, which is slightly higher than Q1 2021 estimates. Furthermore, we expect additional growth of 9.7% in 2022.

INDUSTRIAL. This segment typically follows the general economy, and the construction industry trends, with some minor equipment exceptions, such as forklifts. Currently, we expect an overall growth in production numbers at 9.6% in 2021 vs 2020 with additional growth of 12.4% in 2022.

The main drivers for the segment are small industrial equipment, material handling and forklift applications, where the demand remains strong. Furthermore, material handling is supported by stronger levels of freight, and we expect this trend to continue in 2021-2022.

Consumer sectors, including **LAWN AND GARDEN, PASSENGER CARS, MINIVANS AND SUVs** as well as **RECREATIONAL PRODUCTS** look very promising for the next few years. Not only have these segments entered a new cyclical uptrend, but they will also benefit from favorable fiscal policy and increased demand driven by the economy re-opening.

LAWN AND GARDEN. This segment typically follows a similar pattern to other consumer products; however, given the circumstances related to lockdown, the L&G sector performed very well in 2020 (production was flat in comparison to 2019). We estimate L&G to continue strong performance, driven by healthy demand at 6.8% in 2021 vs. 2020 with additional growth of 9.9% in 2022. During the past year, the segment has suffered supply chain issues.

During the past few quarters, we have been gathering intelligence on new electric models, and we will be completing data and releasing them to our client databases over the next few quarters. Given current market circumstances and the trend in the industry, we believe electric models will follow similar growth rates to its ICE units and will greatly gain market share at the expense of ICE-powered equipment.

PASSENGER CARS and MINIVAN/SUVs. Strong demand supported by low interest rates and a re-opening of the economy will help these segments regain ground in 2021. At the moment, we expect the segment to show healthy growth in 2021, mainly due to a low base in 2020.

However, given the current trend, specifically the market transitioning to SUVs, the production volumes of passenger cars may never fully come back to the levels of 2016-2017. We estimate production for passenger cars to be flat in 2021. Additional growth of 10.7% and 7.8% is expected in 2022 and 2023, respectively.

Over the past few years, the Minivans/SUVs segment has been enjoying growth and taking share from passenger cars. Nevertheless, the overall production has

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North America Report

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declined at 16.3% in 2020 vs 2019. We estimate the rebound in 2021 to be at 10.1% vs 2020. Steady recovery next year is estimated to continue in the following years at 10.9 and 6% in 2022 and 2023, respectively.

We have already started to witness introduction of EV technology across all major OEMs, and we expect this trend to significantly accelerate in the next 2-4 years.

POWER GENERATION. This segment will mainly follow other industrial segments and will gain 8.1% in 2021 after being almost flat in 2020 vs. 2019. The recovery will mainly depend on improved economic conditions in the region and worldwide. We expect the segment to continue to improve in 2022 at 8.9% vs. 2021. Key demand drivers for the segment come from data centers, healthcare, and infrastructure development.

RECREATIONAL VEHICLES. Recreational Products follow similar patterns to other consumer products; however, the pandemic provided a solid growth boost for the segment. We project a strong year at 9.8% growth in 2021 vs 2020, and 8.5% in 2022 vs 2021. **PSR**

Europe Report

By *Natasa Mulahalilovic*, PSR MarineLink Product Manager

HanseYachts Group Reports 'Exceptional Year'



*Natasa
Mulahalilovic*

German boat manufacturer HanseYachts AG has announced preliminary financial results for 2020-2021 that it has described as “exceptional for the company in all respects.”

The group, established in 1990, manufactures sailing, motor yachts and luxury sailing, and motor catamarans under the brands Hanse, Dehler, Moody, Privilege, Fjord and Sealine.

Boats are produced in Germany and France, and are equipped with Volvo, Yanmar and Mercury engines.

Despite the production problems caused by delays in parts supply, the group achieved record results in 2020/2021, with the order book counting more than 1,000 boats. Previously, the group's best year was 2007/2008 when 940 boats were ordered. The revenue this year is expected to be more than € 230 million.

The company says the increased demand comes from the pandemic environment and the heavy on-line promotion of boats. As trade shows did not take place during 2020 and the first half of 2021, the company developed an attractive and detailed on-line presentation of boats which helped potential buyers to make a purchase decision. Hanse Group is considered an industry leader in digitalization.

Hanse boats size, range, quality, navigation system and comfort meet consumer

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Europe Report

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Boating is becoming a preferred choice of families looking for a safe and secure vacation which avoids mass tourism and travelling by train or plane.

requirements for easy, safe, and comfortable boating on most waters.

Expecting a positive trend in demand, the group plans to increase sales numbers and revenues in the 2021/2022 year. The strategic plan of growth is based on the acquisition of a seventh brand manufacturing motorboats in the range from 24 to 39 foot and powered with outboard engines. A new property of 27,500 square meters recently has been acquired in Poland to accommodate a new brand and provide an increases production capacity of 250 boats.

The group also is developing the company as a “Green Factory” using electricity from renewable sources such as sun and wind. The company’s efforts and achievements have been rewarded with German’s 100% Green Electricity certificate. Being recognized as an eco-friendly company gives the HanseYachts products added value which is highly appreciated by a new generation of a pleasure boating consumers.

Boating is becoming a preferred choice of families looking for a safe and secure vacation which avoids mass tourism and travelling by train or plane. **PSR**

Source: *HanseYachts – Press release 30 June 2021* [Read The Article](#)

Brazil/South America Report

By *Fabio Ferraresi*, Director Business Development South America



*Fabio
Ferraresi*

Chinese Great Wall Acquires Mercedes-Benz Facility in São Paulo

Although the acquisition has not been confirmed by the companies, the Journal “O Globo” published a report that an internal communication to Mercedes employees about the deal was released June 25 with technical details of the facility confirming it meets the requirements of the Chinese company.

Source: *Autoespoerte / O Globo* [Read The Article](#)

PSR Analysis: It looks like the perfect match as it is a good opportunity for the German car maker to sell the assets of the plant stopped in 2020 and it is in line with the Chinese OEM strategy to expand business out of China by the acquisition of existing companies or production structures. GWM did it in Thailand when it acquired the plant of General Motors and it plans to do it again in India, again with General Motors.

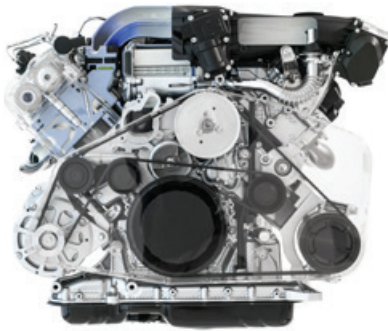
US \$22 Billion in Green Hydrogen Projects in Brazil

From January to June, six Intention Letters to install H2V facilities have been signed by companies and the total of investment involved is around US\$ 22 billion. One of

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Europe Report

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the players is the Australian Fortescue, one of the six biggest producers of iron ore in the world. Companies of renewable energy such as the also Australian Energix Energy and petrochemical as British Petrol are also behind the investment plans.

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

PSR Analysis: The investment is a sign of the presence of Hydrogen to power MHV and Off Highway equipment, either for ICE, solely or combined with Diesel or other fuel, or for Fuel Cells. Another step necessary for the success of Hydrogen as a fuel for MHV and Off Highway equipment in Brazil is the infrastructure for distribution; that should come along with the success of the production plants.

Tupy Developing Efficient Hydrogen Powered Engine

Brazilian Tupy is working with AVL and Westport Fuel Systems to develop a high efficiency ICE powered by Hydrogen, targeting long haul Trucks. Tupy supplies superior materials casting and high precision machining for high pressure injection engines designed and tested by AVL and Westport. First outcomes of the work are expected at the beginning of 2022.

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

PSR Analysis: With the Zero Emissions target and the need for efficient fuel that allow short time for refueling or recharging, Hydrogen looks promising. It can be either used as a source for electricity with the Fuel Cells or burned in the engine combined with other fuel or alone, as in this initiative. It is still preliminary and depending on the results, it may be the salvation for many companies in the ICE supply chain. **PSR**

Taiwan Report

By *Erik Martin*, Director – Asia Region



Erik Martin

ENGIE EPS Acquisition May Create Euro-Asian Powerhouse

TAIPEI. The acquisition of a 60.5% stake in ENGIE EPS by Taiwan Cement Corporation (TCC) was finalized and completed in July.

The deal, which was announced in April, saw the Italy-headquartered stationary storage and e-mobility solutions subsidiary of French multinational Engie taken over by TCC subsidiary Taiwan Cement Europe Holdings.

What both parties get out of the deal

In a press release, TCC said it has now become a “major player” in electric vehicle charging infrastructure as well as its newly acquired capabilities in building large-scale battery storage systems and microgrids.

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Taiwan Report

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The vision shown by TCC in expanding beyond its traditional business model into the realm of global alternative energy solutions will position the firm to be an important player in the development of smart cities in Taiwan and other regions.

To date, ENGIE EPS / NHOA has completed 300MWh of energy storage installations and has 600MWh of projects under construction, including a solar-plus-storage project in Hawaii that combines 60MWac of solar PV with 240MWh of battery storage.

Through a partnership with Free2Move, a subsidiary of automotive OEM company Stellantis, it is also deploying EV charge networks that include bi-directional vehicle-to-grid (V2G) systems. Through the latter offering, the company is currently installing a 25MW V2G project in Turin, Italy, which will provide a new “ultra-rapid frequency reserve” service to Italian grid operator Terna called Fast Reserve.

TCC already owns a lithium-ion battery manufacturer based in Taiwan, called E-Moli, which has 1.5GW of annual production capacity. Through this new deal it is now the sole group based in Taiwan to have in-house R&D, manufacturing and management capabilities across the value chain for clean energy and electric mobility, it claimed. The company touted NHOA's strengths in digital software solutions, including an artificial intelligence-driven energy management system (EMS) and cloud-based monitoring platform.

TCC said immediate opportunities ahead include installing large-scale energy storage systems for Taiwan's various big industrial players. The battery systems could reduce these entities' peak demand use of electricity from the grid and provide backup power as needed.


Source: *Energy Storage News* (by Andy Colthorpe, Editor) [Read The Article](#)

PSR Analysis: The vision shown by TCC in expanding beyond its traditional business model into the realm of global alternative energy solutions will position the firm to be an important player in the development of smart cities in Taiwan and other regions. The key here is that TCC has a cohesive vision for bringing together seemingly disparate elements.

Variable renewables – often hindered by inconsistent supply – once had to rely on diesel or gas backup systems. Battery Energy Storage Systems (ESS) can free the VRE source from dependence on fossil fuel generators, and support utilities by increasing the availability of VRE supplied electricity.

EV charging infrastructures are one of the major hurdles for any city, province or country trying to increase EV adoption and reduce consumer anxiety. By adding Vehicle to Grid/Business/Home (V2X) infrastructure to the equation, EVs that would normally sit dormant during the day in parking lots can be employed, as needed, to provide supplemental energy throughout the day or night.

Certainly, none of these on its own, or even taken as a whole, constitutes a panacea. There are serious challenges when it comes to battery technology and the well-to-wheel impact. Experts I've talked to remind us that a full Life Cycle Assessment (LCA), which calls for comprehensive CO2 emissions control during energy generation, manufacturing, transportation, and recycling must be included in future regulations. Without considering the whole picture, we are certain to miss the mark. **PSR**

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After approval by overseas authorities, Komatsu will provide 54.5%, NTT DoCoMo 35.5%, and Sony Semiconductor Solutions and Nomura Research Institute (NRI) 5% each. The company is well capitalized with more than 15 billion yen.

Far East: Japan Report

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

Sony Joins Komatsu's DX Alliance



*Akihiro
Komuro*

On July 1, Komatsu launched EARTHBRAIN, a new company for the digital transformation (DX) of construction sites. The new company will provide services that will lead to significant cost improvements by digitizing and analyzing data from construction sites.

The parent company of the new company is LandLog, an IoT (Internet of Things) open platform company established by Komatsu in 2017. The investors will be substantially replaced, and some members of Komatsu's digital unit will be transferred to the new company.

After approval by overseas authorities, Komatsu will provide 54.5%, NTT DoCoMo 35.5%, and Sony Semiconductor Solutions and Nomura Research Institute (NRI) 5% each. The company is well capitalized with more than 15 billion yen. Newly added to the list are Sony and NRI. Sony has an advantage in image sensors. NRI will provide its expertise in developing digitalization solutions.

Construction sites are aging, and there is a shortage of young workers. It is estimated that within a few years, there will be a shortage of up to 1.2 million skilled construction workers, or one-third of the required number. In addition, with the spread of COVID-19, construction sites around the world are being urged to reform their work styles.

In the 2000s, the company turned things around by introducing COMTRAX, a system that uses IoT to track the whereabouts of construction equipment around the world and achieved an astonishing V-shaped recovery from a serious deficit of over 80 billion yen to an operating profit of 33 billion yen in just a few years. Times have changed since then, and the speed of competition is increasing. The key to growth will be whether or not the new company will be able to capture the needs of the global field.

Source: Nikkei Business

PSR Analysis: Digitalization is a field where it is difficult to differentiate between companies. However, Komatsu has a great track record of popularizing KOMTRAX, and users' interest in and expectations for Komatsu's next-generation technology are extremely high.

Sony, which has joined the newly established company, has an established reputation in sensing technology and would be a suitable partner, and NRI similarly has extensive knowledge in industrial IT solutions for digitization.

As in the automotive industry, it is no longer possible for a single company, even Komatsu, the industry giant, to develop next-generation functions on its own. The

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Far East Report

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company plans to accelerate development and improve quality by teaming up with companies that have high technological expertise.

I am of the view that the results of these actions by Komatsu will become the global standard for what the next generation of construction equipment should be.

Komatsu's rival, Caterpillar, is also promoting digitalization, and I believe that other construction equipment manufacturers will follow the lead of these two companies. I predict that standards will emerge in the future that will allow equipment from different manufacturers to communicate with each other. **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

コマツのDX連合、ソニーも参画 建設現場変えられるか

7月1日、コマツは建設現場のデジタルトランスフォーメーション (DX) のための新会社「EARTH BRAIN」を始動させた。現場のデータをデジタル化し、分析することで、大幅なコスト改善などにつながるサービスを提供する。新会社の母体はコマツが2017年に設立したIoTのオープンプラットフォームの会社、ランドログだ。出資者を大幅に入れ替え、コマツのデジタル部隊のメンバーも一部移管する。海外当局の認可を経てコマツが54.5%、NTTドコモが35.5%、ソニーセミコンダクタソリューションズと野村総合研究所 (NRI) が5%ずつを出す予定。資本金は150億円超で、かなり本気度は高い。今回新たに加わったのが、ソニーやNRIだ。ソニーは画像センサーに強みを持つ。土量の変化などを認識する「目」の役割を果たす。NRIはデジタル化のソリューション開発などのノウハウを提供する。

建設現場では高齢化が進み、若年の労働者が不足している。建設技能労働者は数年以内に、必要数の3分の1に当たる最大120万人が足りなくなるとされる。加えて、新型コロナウイルスの感染拡大で、世界の建設現場で働き方改革が求められている。同社は2000年代、世界中の建機の居場所をIoTで把握するシステム「コムトラックス」を導入したことで巻き返し、800億円以上の深刻な赤字から、僅か数年で330億円の営業黒字という、驚愕のV字回復を成し遂げた。その後時代は変わり、競争のスピードは速まっている。今回の新会社を機に、世界の現場のニーズを捉えていけるかどうか、成長の鍵を握りそうだ。

出典: 日経ビジネス (一部筆者により元記事内容を改編しました)

PSR 分析: デジタル化自体は他社との差別化がしづらい分野である。だが、コマツにはKOMTRAXを普及させた大きな実績があり、コマツの次世代技術へのユーザーからの関心や期待値は非常に高い。

今回設立した新会社に参画したソニーはセンシング技術に定評があり、パートナーとしては適任だろう。NRIも同様にデジタル化のための産業ITソリューションに豊富な知見を持っている。自動車業界と同様に、次世代機能の開発は、業界の巨人であるコマツといえど、もはや1社単独では難しい。高い技術力を持つ

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た専門性を持つ企業とタッグを組むことで、開発の加速と品質の向上を狙っていく方針だ。

私はコマツのこれらのアクションの結果が、次世代の建機の在り方のグローバルスタンダードになっていくという見方をしている。コマツのライバルであるキャタピラーもデジタル化を推進しているが、他の建機メーカーもこの2社を追従する流れはさらに強まっていくだろう。異なるメーカーの機器同士の通信を可能にする規格も今後現れると予測している。PSR

Far East: South Korea Report

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

South Korea's SK and LG to Build EV Battery Plant in the U.S. Joint Venture in the Gap between U.S.-China Conflict

South Korean automotive battery giants are moving into the U.S. market, with SK Innovation teaming up with Ford and LG Chemical with GM to promote the construction of an automotive battery plant. SK is planning to invest about 300 billion yen in the plant to produce 22 gigawatt-hours of automotive batteries, enough to power 220,000 EVs on an annual basis. SK plans to invest about 300 billion yen in the plant to produce 22 gigawatt-hours of automotive batteries, enough to power 220,000 EVs a year, and in a joint venture with Ford, the two companies will invest 600 billion yen to build a giant 60-gigawatt plant.

SK's annual production capacity as of 2019 is only 5 gigabytes at its Korean plant. The capacity is expected to increase to 30 gigawatts in 2020 with the launch of plants in China and Hungary, to 85 gigawatts in 2023 with the addition of the US plant, and to exceed 185 gigawatts in 2025 with the addition of the joint venture with Ford. SK, a late entrant to the market, ranks sixth with a 5% share of the global market in 2020.

With its bold investment decisions, SK is hurrying to rise to the top of the market, and with orders worth 80 trillion won (about 8 trillion yen), it is pushing ahead with plans to increase production in three locations in the United States, China, and Europe.

LG Chem, the second largest company, is also expanding its investment at a rapid pace, and has secured orders worth 15 trillion yen from a wide range of customers, including GM, Hyundai Motor, Geely Automobile of China, and Tesla of the United States. In the U.S., LG Chemical has partnered with GM to build joint venture battery plants in Ohio and Tennessee with an annual production capacity of 30 gigawatts each.

The creation of these "U.S.-ROK alliances" was also influenced by the political decision to leave China. CATL, which has announced a 1.5 trillion yen investment plan, has production bases in China, including Guangdong, Fujian, and Sichuan provinces.

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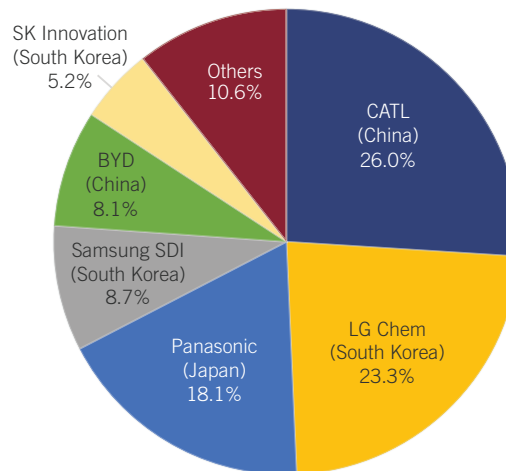
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Not only the three Korean battery makers, LG, SK, and Samsung, but battery makers around the world are aiming to take the lead in the EV market by increasing their production capacity to compete with CATL and other Chinese companies.

With the Biden administration's strong desire to eliminate China from the supply chain and promote home production, U.S. automakers have had to look for partners outside of China. The South Korean government has positioned automotive batteries as the "second semiconductor" and intends to develop them into the next mainstay product after semiconductors, which are the backbone of the country's economy, and aims to accumulate the battery industry by taking advantage of the fact that it has three major companies in the world, LG, SK, and the fourth largest, Samsung SDI.

Global market share of automotive batteries in 2020



Source: The Nikkei


PSR Analysis: Not only the three Korean battery makers, LG, SK, and Samsung, but battery makers around the world are aiming to take the lead in the EV market by increasing their production capacity to compete with CATL and other Chinese companies. Against the backdrop of friction between the U.S. and China, by surrounding themselves with demand in the North American market, where Chinese companies are unable to expand, orders from U.S. and European automakers will probably increase in the short term. However, South Korea is an ally of the U.S. in terms of security, while economically it has strong ties with China. It is searching for just the right balance point but shifts in the political equilibrium can also be a risk.

Most automotive battery manufacturers are currently taking action to increase production, but there is a risk of oversupply after the current supply shortage is resolved. No one is talking about this at the moment because of the rapid increase in demand, but I believe it is a point that should be considered. **PSR**

極東 > 韓国レポート:

韓国SKやLG、米でEV電池工場 米中対立の間隙突き合併

韓国の車載電池大手が米国市場を攻略している。SKイノベーションがフォードと、LG化学がGMと組み、車載電池工場の建設を推進する。米中対立を背景に世界首位メーカーのCATLが踏み込めない米国市場で、韓国勢は顧客の取り込

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みで先行したい考えだ。SKは同工場に約3000億円を投じ、年産ベースでEV22万台分に相当する22ギガワット時の車載電池を作る計画だ。さらにフォードとの合弁計画では、両社で6000億円を投じて60ギガの巨大工場を建設する。

SKの2019年時点の年産能力は韓国工場のわずか5ギガのみ。中国とハンガリーの工場立ち上げで2020年に30ギガに拡大し、米工場が加わり2023年に85ギガに、さらにフォードとの合弁を加えて2025年には185ギガを上回る見通しだ。

後発SKの世界シェア（2020年）は5%で6位。持ち前の大胆な投資決断で上位浮上を急いでおり、80兆ウォン（約8兆円）の受注を得て米中欧3カ所で増産計画を推し進める。

急ピッチで投資拡大するのは2位のLG化学も同じだ。GMや現代自動車、中国吉利汽車、米テスラなど幅広い顧客から15兆円規模の受注残を確保したもよう。米国ではGMと提携し、オハイオ州とテネシー州に年産能力で各30ギガの合弁電池工場を設ける。

これら「米韓連合」づくりには脱中国という政治判断も影響する。1兆5000億円の投資計画を表明するCATLは広東省や福建省、四川省など中国に生産拠点を持つ。サプライチェーン（供給網）から中国を排除し、自国生産を推進するバイデン政権の意向も強く、米自動車メーカーにとっては中国以外のパートナーを探す必要があった。

韓国政府は車載電池を「第2の半導体」と位置づけ、自国経済の屋台骨である半導体に次ぐ主力製品に育てる意向だ。LGとSK、そして4位のサムスンSDIの世界大手3社を擁する強みを生かして電池産業の集積を目指す。

出典: 日経（一部筆者により元記事内容を改編しました）

PSR 分析: LG、SK、Samsungの韓国の電池メーカー3社に限らず、世界中の電池メーカーは生産能力を増強することで、CATLをはじめとする中国勢に対抗し、EV市場で主導権を狙う戦略だ。米中摩擦を背景に、中国勢が進出できない北米市場での需要を囲うことで、短期的には米欧の自動車メーカーからの受注が増えるだろう。しかし、韓国は安全保障で米国の同盟国でありながら経済的には中国との結びつきが強い。ちょうどよいバランスポイントを模索しているが、政治的な均衡が変動することはリスクにもなり得る。

現在ほとんどの車載電池メーカーは増産の方向でアクションしているが、現在の供給不足が解消された後、供給過多になるリスクはある。現在は需要が急増しているために誰もそのことには触れていないが、考慮すべき点だと私は考えている。 **PSR**

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As the growth of the Chinese market slows, China's Sanichi Heavy Industries is accelerating its overseas expansion in search of new sources of revenue.

SouthEast Asia: Indonesia Report

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

Sany Challenges Komatsu's Grip on Indonesian Construction Machinery Market

The battle between major Japanese and Chinese construction machinery companies is intensifying in Indonesia. As the growth of the Chinese market slows, China's Sanichi Heavy Industries is accelerating its overseas expansion in search of new sources of revenue.

Komatsu, which has a stronghold in Southeast Asia, is responding by introducing mid-priced machines and expanding its maintenance bases. Who will dominate the growing market following China will also affect the power structure of the construction equipment market in Asia.

The island of Sulawesi has a high concentration of nickel smelters, which are used to make batteries for EVs, and reportedly about 70% of these smelters have Chinese capital. According to Chinese media, in the first half of May alone, more than 600 hydraulic excavators manufactured by Sanichi arrived in Sulawesi and were transported to smelters and other facilities. The number of the company's hydraulic excavators in operation in Indonesia as a whole has exceeded 5,000.

The company's weapons are its price competitiveness, which is said to be about 20% lower than that of Japanese companies, and its sales capabilities in conjunction with the One Belt, One Road Initiative. China outbid Japan for the construction of a high-speed railroad linking the capital Jakarta with neighboring Bandung. More than 500 units of Sanichi's construction equipment were used in the construction of this high-speed railroad.

Uncertainty about the future of the Chinese market is behind the rush by Chinese companies to develop overseas markets. The sales volume of hydraulic excavators turned negative in April and declined by more than 20% in May compared to the previous year, a reaction to the significant growth in 2020 due to the resumption of infrastructure development after the convergence of COVID-19.

There are forecasts that the sales volume will decline by about 10% for the full year of 2021. On the other hand, sales in Southeast Asia are strong. Komatsu expects the demand for construction machinery in FY2021 (on a volume basis) to increase by 10-15% from the previous year. In particular, Indonesia, which has the largest construction equipment market in Southeast Asia, is expected to see a significant increase in infrastructure investment in 2021, partly due to Corona's measures. The construction of roads and railroads will be a commercial opportunity for construction machinery companies.

In the January-March period, SANY's market share in Indonesia was 21%, close to Komatsu's 22%. In the fiscal year ending March 2010, Komatsu expects its sales in Asia, excluding China, to increase 73% from the previous fiscal year to 240.4

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Southeast Asia Report

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billion yen. It will be the fourth largest region after North America, Latin America and Japan, accounting for about 10% of the total. In Southeast Asia, the shadow of China flickers in areas other than Indonesia. In Thailand, it is believed that Chinese companies have come to account for about 30% of the market share over the past few years and are chasing Komatsu, which is estimated to have about 50%.

The question is whether Komatsu will be able to maintain its market share by introducing products in the mid-price range and providing a generous support system while keeping its distance from price competition. Or will SANY be able to make a breakthrough by bringing the balance between price and performance to the fore? The competition in Indonesia is likely to determine the future profitability in the emerging economies.

Source: Nikkei Asian Review

PSR Analysis: In the **June issue of PowerTALK**, I discussed the ties between Japanese automakers and the automobile industry in Southeast Asia; a similar major change is about to begin in the construction equipment segment there. In recent years, Chinese and Korean construction equipment manufacturers have been conducting sales activities to increase their market share, including setting up large booths at exhibitions in Southeast Asia. One of the strong points of the Chinese manufacturers is price. SANY has lowered the price by about 20% and improved durability and other quality features. Komatsu, on the other hand, offers excellent after-sales service through its distributors and is strong in mining equipment.

I have asked local users about their opinions, and up until five or six years ago, Chinese products were not very popular because of problems with durability and after-sales service. Many construction machines were purchased because they were inexpensive, but the market was reluctant to buy them because they did not respond well when they broke down. Today, however, the quality of Chinese brands has improved dramatically, and this is a major threat to Komatsu and other Japanese manufacturers.

The use of Chinese construction equipment is implicit in many of China's One Belt, One Road policies, and this is one reason for the huge growth. Japanese manufacturers are trying to differentiate their products in terms of function and other factors without getting into a price war, but which will be more highly valued by Indonesia and other Southeast Asian markets, price or function? The market structure has the potential to change dramatically.

東南アジア > インドネシアレポート:

中国・三一、コマツに肉薄 低価格武器にインドネシアで

インドネシアで日中の建設機械大手の争いが激しくなっている。中国市場の伸びが鈍化するなか、中国の三一重工は新たな収益源を求めて海外展開を加速する。東南アジアを牙城とするコマツは中価格機の投入や保守拠点の拡大で対抗する。中国に続く成長市場をどこが制するかは、アジアでの建機市場の勢力図にも影響する。

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Southeast Asia Report

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スラウェシ島にはEVの電池材料となるニッケルの製錬所が集積し、その約7割に中国資本が入るとされる。中国メディアによると、5月前半だけでスラウェシ島に600台余りの三一製の油圧ショベルが到着、製錬所などに運び込まれた。インドネシア全体で同社の油圧ショベルの稼働台数は5000台を超えたという。武器は日本企業よりも約2割安いとされる価格競争力と、一带一路構想と連携した販売力だ。首都ジャカルタと近隣のバンドンを結ぶ高速鉄道の建設を巡っては中国が日本に競り勝った。この高速鉄道の建設工事にも500台以上の三一の建機が使われた。

中国企業が海外の開拓を急ぐ背景には、中国市場の先行き不透明感がある。油圧ショベルの販売台数は4月に前年比マイナスに転じ、5月は2割以上減った。COVID-19収束後のインフラ開発の再開で2020年に大幅に伸びた反動が出た。2021年通年は約1割減るとの予想もある。一方、東南アジアは堅調だ。コマツは2021年度の建機需要（台数ベース）は前年度比10～15%増えるとみる。なかでもインドネシアは東南アジアで最大の建機市場を抱える。2021年のインフラ投資はコロナ対策もあり大幅に増える見通し。道路や鉄道などの整備は建機各社の商機となる。

インドネシアでのシェアは1～3月期に三一が21%とコマツの22%に迫る。そのコマツは22年3月期に、中国を除くアジアでの売上高を前期比73%増の2404億円と見込む。地域別では北米と中南米、日本に次ぐ4番目で、全体の1割程度を占める。東南アジアではインドネシア以外でも中国の影がちらつく。タイでは中国勢がここ数年で3割程度のシェアを占めるようになったとみられ、約5割とされるコマツを追いかける。

コマツが価格競争から距離を置きながらも中価格帯の製品投入や手厚いサポート体制でシェアを守るか。それとも三一が価格と性能のバランスを前面に出して躍進できるか。インドネシアでの競争は新興国での今後の収益性を占うものとなりそうだ。

出典: 日経アジアレビュー（一部筆者により元記事内容を改編しました）

PSR 分析: 6月号のPowerTALKで日系自動車メーカーと東南アジアの自動車産業の結びつきについて述べたが、建機セグメントにおいても、似たような大きな変化が始まろうとしている。近年では中国や韓国の建機メーカーも、東南アジアでの展示会で大きなブースを出展するなど、市場シェアを伸ばすために営業活動を行ってきた。中国勢のストロングポイントとしては価格だ。コマツは代理店のアフターサービスが充実しており、鉱山機械に強みがある。一方SANYは約2割安い価格と、耐久性などの品質も向上させている。

私は現地のユーザーに意見を聞いたことがあるが、5～6年前までの中国製品の評価は、耐久性とアフターサービスに問題があるとされて人気はいまいちだった。安価であることから多くの建機が購入されたが、故障時の対応が良くないため、市場は敬遠気味だった。だが今日、中国ブランドの品質は劇的に改善されてきており、これはコマツをはじめとする日系メーカーの大きな脅威になっている。中国の一带一路政策の多くでは中国の建機を使うことが暗黙の了解となっており、これが大きく伸びている一因だ。日本メーカーとしては価格競争に持ち込まずに、機能面などで差別化を図ろうとしているが、インドネシアをはじめとする東南アジアの各国市場が価格と機能のどちらをより高く評価するのか。市場構造が大きく変わる可能性を秘めている。**PSR**

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The amendments to the FAME-II electric vehicle policy were rolled out in the last month and manufacturers have lauded the efforts in adopting EV mobility in the country.

India Report

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

Second FAME II Incentives May Spur EV Demand



*Aditya
Kondejkar*

The amendments to the FAME-II electric vehicle policy were rolled out in the last month and manufacturers have lauded the efforts in adopting EV mobility in the country.

Source: *Financial Express*. [Read The Article](#)

PSR Analysis: The government partially modified the Faster Adoption and Manufacturing of Electric Vehicles in India Phase II. Further, it has included an additional demand incentive for electric two-wheelers to ₹15,000 per kWh from an earlier uniform subsidy of ₹10,000 per kWh for all EVs, including plug-in hybrids and strong hybrids except buses.

This decision will increase subsidies for such vehicles by 50% under the FAME II scheme and be a game-changer in adopting EVs.

“The revision in the FAME (II) policy, increasing the subsidy by 50% per kWh, is an unprecedented move, says Tarun Mehta, Ather Energy CEO and Co-founder. “Sales of electric two-wheelers have grown despite the pandemic. With this additional subsidy, we expect electric two-wheeler sales to disrupt the market, and clock six million-plus units by 2025.”

Along with the central government, state governments are also announcing additional subsidies. Gujrat government announced a demand incentive of ₹10,000 per kWh for e2W, e3W, and e4W. Maharashtra government is also providing additional subsidies for EVs. The state government gives incentives of ₹5000 per kWh of battery, and the maximum incentive for electric two-wheelers is ₹10,000 and ₹30,000 for electric three-wheelers.

Such moves from the government will boost the faster adoption of EVs and nearing the inflection point of EV adoption. Furthermore, with this kind of solid support, OEMs will also take a step forward to accelerate the mass adoption of EV 2wh.

TVS Motor Company, one of the leaders in the recreational segment, has established a dedicated EV vertical and planning program to invest ₹1,000 crores. With this new vertical and hefty investment, TVS plans to establish its presence across all key EV segments, including the commuter market, premium scooters, high-performance bikes, electric three-wheelers, and even the delivery market. The company said its EV range would be similar to its current range of petrol-powered vehicles. **PSR**

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Russia Report

By *Maxim Sakov*, Market Consultant, Russia Operations



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Russia To Suspend Support of Domestic Auto Industry

The Russian auto market's increased demand for new passenger cars has caused inventory shortages, and these shortages have caused Russian authorities to suspend State programs of industry support.

In May, for example, the number of the cars sold increased by 2.3 times, compared to same period in 2020. This growth is partly the result of pandemic restrictions last year. A total of 663,000 new cars have been delivered to the customers this year, up 39% from a year ago.

Another reason for the shortage of cars in Russia is a shortage of semiconductor chips.

Earlier, the ministry of trade and industry planned to resume car privileged credit programs, but now these plans have been cancelled. An increase of utilization fees was also postponed.

Experts say that without State support car sales will decrease, and this Autumn there will be no deficit of popular models. **Read The Article**

PSR Analysis: The Russian passenger car market is definitely overheated. Still, there are no serious reasons for this other than pent-up demand. So, this situation won't last for long time. Also, postponing an increase in the utilization fee will give additional support to the market. When the fee is increased, it probably will cause the market to decline.

KAMAZ Introduces Hercules Articulated Truck

The first pictures of the new KAMAZ articulated mining truck have been published, showing a configuration of the truck with a 6x6 chassis. It will compete with the Caterpillar 740 and Volvo A40F.

The articulated frame will increase maneuverability and off-road characteristics of the truck. Hercules will be equipped with a hybrid powertrain. The new truck will use a KAMAZ R6 engine of 450 hp, and the nominal output of every electric motor will be 517 hp. The load capacity of Hercules is 40 tons, and the full weight is 75 tons. A light option with 4x4 format and 25-ton capacity are also in the plans.

Mass production of the truck is expected to start in 2023. **Read The Article**

PSR Analysis: Mining trucks with articulated frames are used in mining during stripping operations, and in construction in off-road areas. There were no such trucks of domestic origin until this year, and 100% of machines used in this niche

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Russia Report

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Government officials have said that a firing of this magnitude is an “unacceptable decision” and suggests resolving a problem with Russian Railways and Ministry of Trade and Development.

were imported. It looks like a centralized decision to develop this kind of trucks has been taken. A month ago, another Russian OEM – Tonar – introduced a truck of the same type.

Sinara May Dismiss 20% of Workers Because of Reduced Orders

The machine building company “Sinara – Transport machines” (STM), says it may be forced to dismiss 20% of personnel because it has lost most of its orders from Russian Railways for cranes and other railway service machines.

Sinara has lost 85% of the orders from Russian Railways for railway service machines. Because of decreasing orders from the railway monopoly, the main client of STM, 7,000 people on its plants have not worked since August. The total personnel number in STM is 32,000 people, so about 20% of its personnel is questionable. Now, the company is looking for a way to re-qualify these people.

Government officials have said that a firing of this magnitude is an “unacceptable decision” and suggests resolving a problem with Russian Railways and Ministry of Trade and Development. Also, the government should increase Russian Railway’s investment program for about US\$ 150 million (10 billion Rubles) to resolve this problem. Last year, STM supplied railway machinery valued at US\$ 330 million, but this year’s expected order portfolio is valued at US\$ 120 million.

According to Russian Railways, its approved investment program for 2021 includes the purchase of 560 units of railway service machinery, 90% of which is purchased from STM. [Read The Article](#)

PSR Analysis: STM is integrated with TMK, a large metallurgical company. Both companies have the same owner, which is one of active participants in a recent confrontation between the Russian Government and local steel companies. This may be a reason for the current issues with order losses. Another possible reason is increased prices for railway machines, caused by increased steel prices. **PSR**

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