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Power Systems Research (PSR) is a world leader in providing power equipment information, whether it's pure data, analysis, forecasting or specific business intelligence. This product information ranges from IC engines to battery-electric and hybrid powertrain technologies. PSR has been providing world class business and market intelligence to industry leaders for more than 40 years. How can we help you? For details, call **+1 651.905.8400** or email info@powersys.com. www.powersys.com

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New Power Systems Research Website

The new Power Systems Research website (www.powersys.com) has been designed to make it easier for visitors to quickly and conveniently find the information they need. And do so in an attractive, organized environment.

Industry information presented in the monthly PowerTALK™ News report and the quarterly Truck Production Index and PowerTracker™ gen-set reports provide up to date information and analysis on important industry events and trends.

“Our goal with the new design is to provide timely and useful information in a package that’s attractive and easier to use than our previous website,” says Joe Zirnelt, PSR president and CEO. “We think we’ve succeeded. Take a look and let us know if there are additional features we can add to make the site an even better resource for you and your co-workers.”

GIE+EXPO Report

By *Tyler Wiegert*, Project Manager at Power Systems Research,
Michael Aistrup, Senior Analyst

Battery Technology Heats Up at 2019 GIE+EXPO



Tyler Wiegert

GIE+EXPO is the annual gathering for all segments of the outdoor power equipment and lawn and landscape industry. The event is sponsored by the **Outdoor Power Equipment Institute**, the **Professional Grounds Management Society** and the **National Association of Landscape Professionals**.

This year, the show drew more than 26,500 people from around the world. The indoor exhibit floor and the Outdoor Demonstration Area covered 24,000 net sq. ft. more than last year.



Michael Aistrup

Show highlights

- Lawn and landscape attendee categories increased by 18%.
- Servicing dealer registrants increased by 8%.
- Thirty-four percent of dealer/retailer and 42% of lawn and landscape attendees were first timers.
- Attendees hailed from all 50 states and more than 40 countries.
- Indoor booths were spread throughout 675,000 sq. ft. of exhibit space.
- The Outdoor Demo Area exceeded 20 acres for the third year in a row.
- More than 80 products were highlighted in the New Products Spotlight.

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GIE + EXPO Report

Continued from page 2

The ongoing transition to battery-powered equipment reached a critical milestone at this year's GIE Expo: the release of commercially viable tools.

Many Product Introductions Featured Electric Power

- **Avant** introduced the 860i, its largest and most powerful loader to date;
- **Bobcat** launched its new line of sub-compact and compact tractors which range from 21 to 58 hp and debuted the newest member of its R-Series excavator lineup, the new E26 compact excavator
- **Caterpillar** introduced its D3 series compact track and skid steer loaders and 306 mini-excavator;
- **JCB** introduced its 1CXT compact tracked backhoe;
- Multi-One introduced the company's EZ Series electric mini-loaders;
- **Toro** introduced additional models in its 60V Flex-Force lineup, its new TimeCutter zero-turn mowers, new 60-in. TITAN;
- **ASV** showcased two special edition machines: The Green Beast, a green and black version of the RT-120 forestry compact track loader and the Black Widow, a black and red version of the RT-40 among the industry's smallest sit-in compact track loaders;
- **Mean Green** launched its new Rival and its new EVO.
- Gravely launched its new full-electric commercial ZT machine, with new drives and batteries.
- **Exmark** unveiled its newest Lazer Z X-Series zero-turn mower that sports a 96-inch deck.
- **Hustler Turf** debuted its Super 88 zero-turn stand-on mower allowing operators to mow faster and with a smaller crew.
- Vanguard Lithium-Ion Commercial Battery System; Vanguard 14.0 gross HP 400 and 5.0 Gross HP 160 single-cylinder, horizontal shaft commercial engines; and Integrated InStart and Electronic Fuel Injection with Electronic Throttle Control on Briggs & Stratton residential engines. Commercial innovations included the Ferris ISX2200 & ISX3300; Ferris FS5250 Voyager; Snapper Pro SW15; Snapper Pro S120; Billy Goat Next Gen Debris Loader; and the Billy Goat Post Hole Auger.

Battery Technology

The ongoing transition to battery-powered equipment reached a critical milestone at this year's GIE Expo: the release of commercially viable tools. Several OEMs released handheld and walk-behind tools with batteries above 80V, the level they all agreed provides gas-equivalent power.

Power Systems Research is based in Minnesota, and we were happy to see a battery-powered snowblower that boasted a 60' launch range, although the standard 35' is just fine. OEMs reached this power level in different ways, with some increasing the weight of their equipment by installing larger batteries and others releasing battery backpacks, so landscapers can hold that weight with their core rather than their arms. Run time was up, too. Few people claimed their machines could run a full 8-hour day, but the refrain was that it will run all of the hours you actually need them to run, if you manage your batteries well and charge them on your downtime.

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GIE + EXPO Report

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OEMs appeared to indicate a coming shift from the release of more-powerful products to educating their end-users on how to get the most out of the equipment. That isn't to say that more-powerful equipment isn't still coming. Last year, most OEMs expected to have their battery powered ZTR mowers on the market in 2023. This year, several new players announced release dates as early as next year.

Along with greater power, greater autonomy was on display at GIE 2019. Last year, Husqvarna was the clear leader in the robotic mower market, and while they still stole the show in that space with their new articulated robotic mower, there were at least two dozen booths displaying a new robotic mowers or robotic mower services. Mowers were not the only machines being automated, though. Remote-control, battery-powered sidewalk plows and tool carriers also made a showing. We look forward to seeing a further spread of automation next year.

The European market has embraced these “Roomba” like machines for years, but the U.S. has been slow to catch on. Companies have been working on ways to make no boundary wires better for the US market with our bigger yards, and landscaping features and improvements have been made.

We will see if the U.S. market starts to adopt the robotic mower at the rate that everyone hopes.

Future

The conversation about “if” electric is coming is done, and the “when” discussion will be soon over. Now the outdoor power equipment industry must do a better job of building what the customers and dealers want.

There will be more advanced displays and touch controls on the machines and electric outdoor power equipment will become more user friendly. The big engine companies are finally embracing the electrification of the market that is coming.

PSR

NACV Show Report

By Joe Zirnhelt, President and Chief Executive Officer

Recurring Theme: Focus on EVs for Long Range Duty



*Joe
Zirnhelt*

Power Systems Research had a booth presence at the 2019 North American Commercial Vehicle (NACV) show that took place at the World Congress Center in Atlanta, GA, Oct. 28-31, 2019.

The NACV featured a “Technology Showcase” where many of the leading OEMs and supply chain companies put their latest market introductions on display. There were over 500 exhibitors at the show – assembled in both Exhibition Hall A and Exhibition Hall B of the World Congress Center.

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NACV Show Report

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A recurring theme at the show was a focus on the ever-growing presence of the all-important pure battery electric vehicle for longer range duty.

The team in attendance from PSR included:

- Joe Zirnhelt, President and CEO
- Chris Fisher, Senior Commercial Vehicle Analyst
- Marilyn Tarbet, Director, New Business Development North America
- John Krzesicki, Business Development Manager
- Yosyf Sheremeta, Director/Product Management/Customer Experience
- Tyler Wiegert, Project Manager and Research Analyst

A recurring theme at the show was a focus on the ever-growing presence of the all-important pure battery electric vehicle for longer range duty as well as some of the more unique solutions including fuel cell power trucks by Nikola Motor Company.

The truck market in North America is at historically high levels and there were many conversations focusing around where things are headed here into the short and medium term.

Review the PSR photo report from the NACV Show. PSR

NA Gen-Set Report

By Tyler Wiegert, Project Manager at Power Systems Research

Winter Is Here, and Consumers Are Ready



*Tyler
Wiegert*

SUMMARY: *Gen-set sales in Q3 2019 rose 7% from Q2 2019, due to a continued strong demand for standby power systems. Standby systems in both the residential and commercial sectors drove this growth (the highest QoQ growth of the year so far), with the 10-20kW range increasing sales by nearly 12% and the 21-50kW, 51-100, and 101-300kW ranges growing 5%-7%.*

Regular readers may remember that after the hurricane season of 2017, we predicted there would be a new baseline level of sales in the gen-set market and that the market would not experience a corrective crash after the shock of that particularly bad season wore off. Dealers explicitly confirmed that suspicion this quarter, stating that new clients, both younger and older than they were used to, were coming to them with the intention of being proactive about preparing for the upcoming winter season.

These new customers appeared to prefer natural gas gen-sets over diesel gen-sets, with diesel only growing 3% in the 10-20kW range and remaining flat or declining in all other ranges, while natural gas gen-set sales grew 8-10% in those 10-300kW ranges. On a Year-on-Year basis, overall unit sales for Q3 2019 were up 2.9%, compared to sales in Q3 2018.

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NA Gen-Set Report

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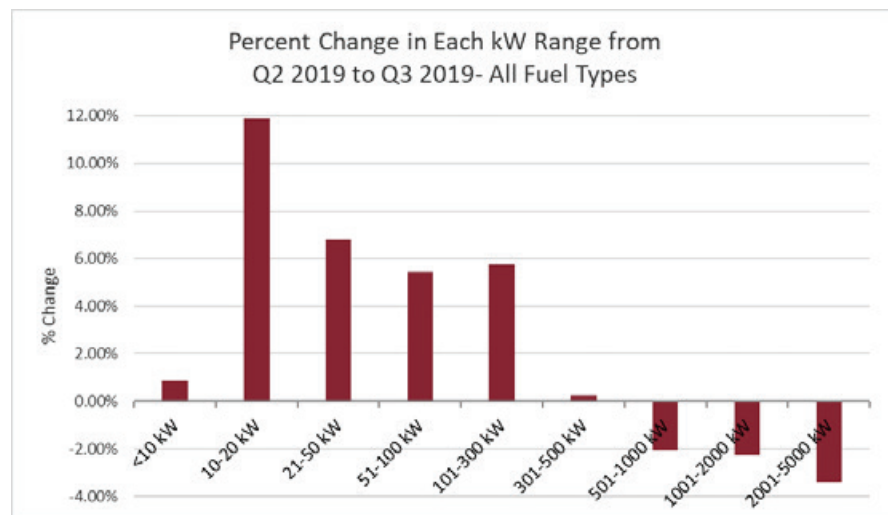


The data comes from the proprietary **PowerTracker™** series of syndicated surveys conducted each quarter by Power Systems Research (PSR). A total of 1,400 interviews are completed each quarter with gen-set dealers and distributors, businesses and households across North America.

In the third quarter, several dealers told us they were seeing increased spending from customers who were looking to be prepared for winter storms. This is supported when looking at the historical QoQ sales growth for each power range in Q3.

In Q3 2017, we saw a huge spike in the sale of <10kW gen-sets. Over the last two years, however, we have seen sales growth in that power range drop precipitously, to about flat in Q3 2019. Those sales appear to have shifted primarily to the 10-20kW power range, which experienced a resurgence back to its high Q3 2017 level.

Commercial demand for standbys was also reported to be strong. As with the residential demand, commercial end-users appear to prefer natural gas. While the 101-300kW range more than doubled its typical third quarter growth with a nearly 6% expansion this year, diesel sales actually declined by 1% in that range. It was the almost 10% growth in natural gas sales in that range that drove the increase.



Dealer inventory levels rose 0.5% in Q3 2019 compared to the previous quarter, which is low QoQ growth compared to the third quarter in the past five years, beating only 2018 which experienced a very minor decline. This leaves inventories 6.1% higher than Q3 2018.

As part of our **PowerTracker™** series, we also monitor gen-set sales trends by application. Standby gen-set sales continue to be dominant, growing about 14% while portable sales were flat, and all other applications declined.

This marks the fifth consecutive third quarter with double-digit growth for standby sales. No other application has such a consistent pattern for third quarter sales, but cogeneration does stand out with its marked 7% decline in a time of year when it typically at least holds flat.

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NA Gen-Set Report
Continued from page 6

Dealers and distributors expect a flip in power range performance in Q4 2019. In Q3 2019, the ranges between 10 and 300kW performed well, while portables and the larger power ranges lagged.

METHODOLOGY: Since 1998, Power Systems Research (PSR) has continuously maintained its **PowerTracker™** series of syndicated surveys, conducting 1,400 interviews each quarter among three key respondent groups in North America: gen-set dealers and distributors, businesses and households.

We conduct 200 interviews each quarter among dealers and distributors; the focus of this survey is on recent sales and market observations for the current quarter as well as expectations for the coming quarter.

Our Business Consumer survey consists of 900 interviews per quarter among a wide cross section of businesses to gather their input concerning ownership, usage trends and motivating factors for purchase, including any concerns about the reliability and availability of electric power.

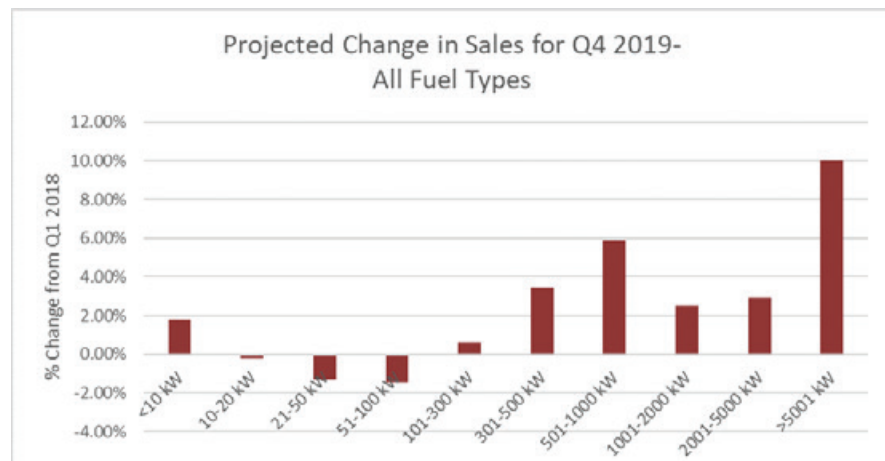
Finally, our Household Consumer survey consists of 300 interviews per quarter to learn more about gen-set ownership trends among households and monitor the likelihood of a gen-set purchase.

Dealer/Distributor Outlook for Q4 2019

Dealers and distributors expect a flip in power range performance in Q4 2019. In Q3 2019, the ranges between 10 and 300kW performed well, while portables and the larger power ranges lagged. For Q4 2019, dealers are expecting sales to be flat to a decline of as much as 2% in the 10 to 300kW ranges.

At the same time, they offered an unusually positive forecast for the 301-500kW, 501kW-1MW, and 1MW-2MW ranges. They predict 2.5-6% growth in those ranges, demonstrating greater optimism about Q4 2019 in those ranges than for the same period in any of the last four years.

These positive expectations seem to be driven by optimism regarding diesel gen-set sales in the 301-500kW range and about natural gas in the 501-1MW and 1-2MW ranges. Dealers are expecting a low single-digit decline in natural gas sales in the 10-300kW ranges and a low single-digit gain in diesel sales in those same ranges.



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NA Gen-Set Report
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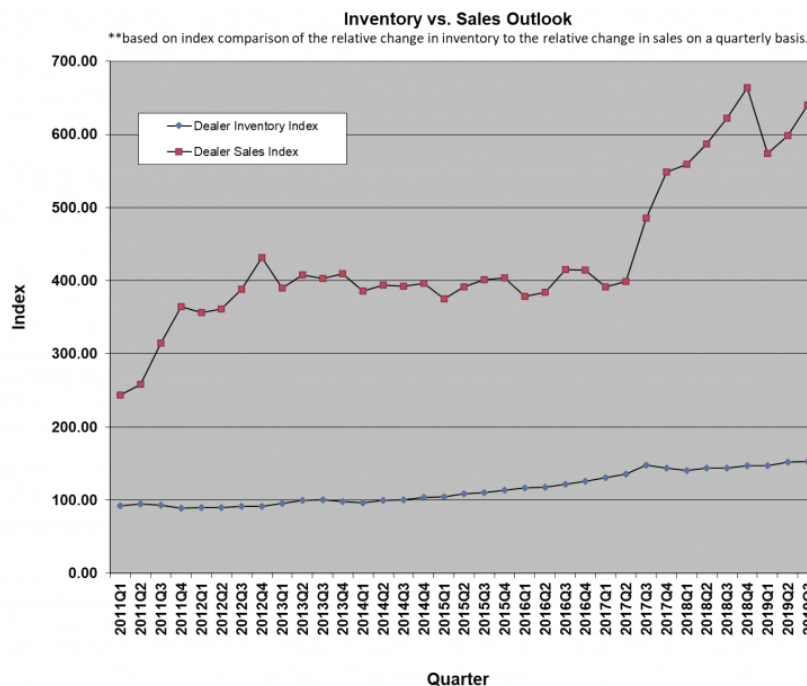
When asked, **“Why do you expect sales to change in the upcoming quarter?”** comments from dealers focused on the following market observations:

Severe Weather Season: Several dealers reported that consumers were being proactive about preparing for the coming winter season, whether that means hurricanes or severe cold. This is coupled with an increased demand for larger standby gen-sets. This all marks a shift from the pattern in previous years of rushing out to buy a portable gen-set after the storm hits.

End of Summer: While some dealers were excited about the dawn of a new season and the purchase of necessity-generators that it would bring, others were lamenting the end of a season of sales for recreational gen-sets. As the last hardy campers succumbed to cooling temperatures and the end of tailgating season, dealers that rely on these types of sales were settling in for a quiet winter.

Blackouts: A few dealers mentioned the PG&E planned blackouts in California that are intended to prevent wildfires. These efforts have so far failed to completely prevent wildfires, so we will watch to see how further expanded blackouts impact the power generation market. Given the widespread attribution of the wildfires to climate change by officials in the region, we will also be curious to see if California adopts even stricter emissions standards on generator sets. We aren’t aware of any proposals at this time, but it seems unlikely that a region concerned about climate change will allow the solution to their climate change-fueled wildfires be to adopt thousands of greenhouse gas-emitting generators.

When asked, **“What changes have you recently noticed among particular customer groups or product categories within your market?”** there were several comments that emerged as common themes. Many of these are comments that have carried from quarter to quarter, but the following is a sampling of some key observations:



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NA Gen-Set Report

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By and large, dealers reported a continuation of trends from the last quarter. Aside from the increased desire to be prepared for **natural disasters**, planned and unplanned **power outages**, and the consequent rise in **whole-house generators**, dealers report that the rise in **residential demand** is being accompanied by a shift in consumer demographics toward **younger buyers**.

Consumers are increasingly drawn to **technological advancements** in their power generation. The move toward **natural gas** has been going on for years, but consumers are now also demanding **silent generators**, generators that can be **monitored remotely by phone**, and **inverters**. **PSR**

Europe Report

By *Emiliano Marzoli*, Senior Business Development Manager - European

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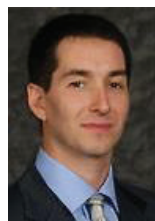


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Emiliano Marzoli

Nikola, Iveco and FPT Target Heavy-Duty Commercial Vehicle Market

Read The Article

On Dec. 3, 2019, Nikola, Iveco and FPT Industrial presented the first result of their partnership, the Heavy-Duty Nikola TRE™ Class 8 Battery Truck.

The primary focus of the partnership is to leverage the partners' respective expertise to successfully deploy zero-emission heavy-duty trucks and to disrupt the industry with a new business model.

Testing and development of the new model will continue during 2020, with the official presentation during the IAA Show in September 2020. Sales and aftersales support of the Nikola TRE will be provided by IVECO's widespread European dealer network.

Nikola TRE, which is based on the new IVECO S-WAY platform, integrates Nikola's truck technology, controls and infotainment packages. Iveco and FPT Industrial will use their industrialization expertise to produce the truck.

Thanks to the Iveco/FPT Industrial partnership, volumes of Nikola branded vehicles are set to increase rapidly in the coming years and become one of the most popular players in the segment of alternative fuel trucks.

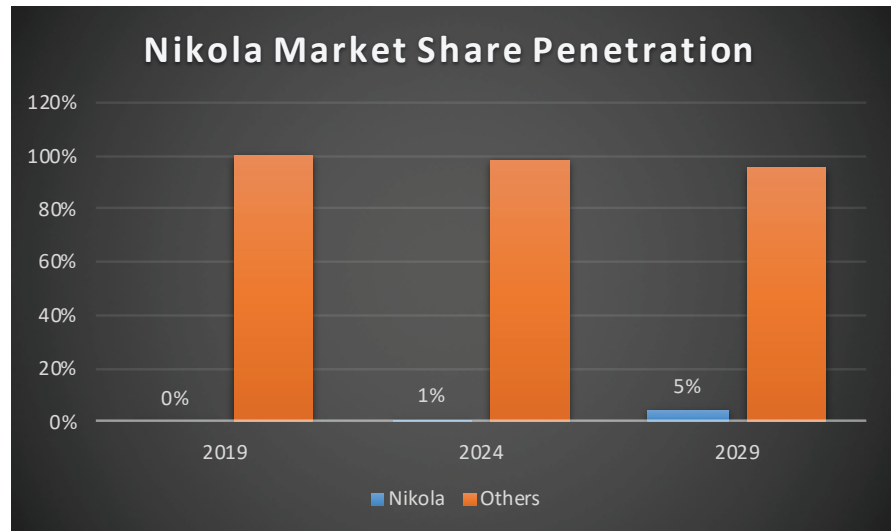
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Europe Report

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PSR OE Link™

We expect that by 2029 Nikola branded trucks will have a 5% share of the global market.

At the same time, more vehicles with alternative drives, such as Fuel cells, electric batteries or Hybrid powertrains, will enter the market. Ten years from now, we expect that at least 9% of Medium and Heavy trucks will be driven by alternative powertrains.

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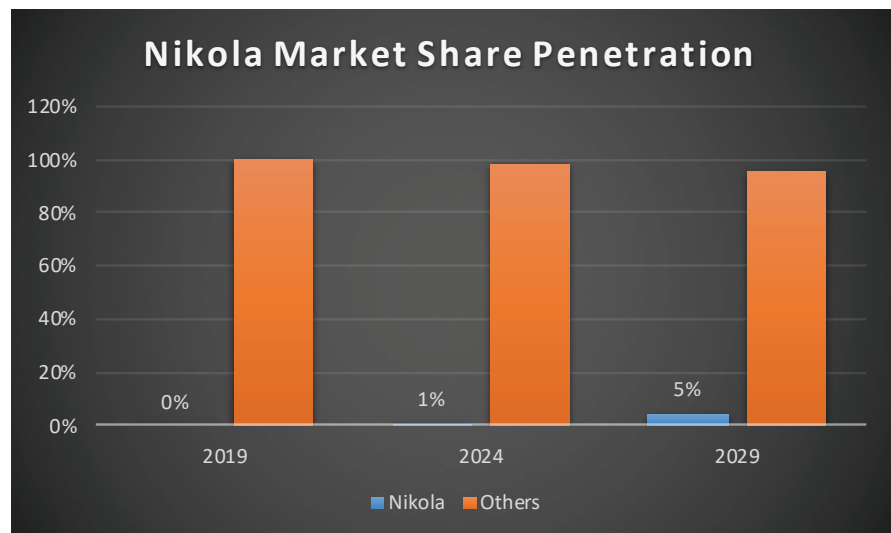
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Diesel will remain predominant, due to its long-haul advantage. However, depending on battery and infrastructure development, the penetration of EV trucks could be more aggressive. We will monitor this technological and market evolution closely in coming quarters. **PSR**

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Europe Report

Continued from page 10

In 2018, production of On-Road Motorcycles in the United States increased 7.5% over 2017. However, production is expected to drop nearly 2% in 2019 from 2018.

Data Point: NA On-Road Motorcycles

507,400

By Carol Turner, Senior Analyst, Global Operations

This is the estimate by Power Systems Research of the number of On-Road Motorcycles that will be produced in North America (U.S., Canada and Mexico) in 2019.

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: Mexico-based Italika leads in the production of On-Road Motorcycles with 54%. Harley Davidson takes second place with combined plant totals of 44%. Polaris Industries is third with a nominal 2%.

Exports: Italika exports to Guatemala, Honduras, Panama, Peru, Brazil & Puerto Rico. United States: up to 20% worldwide

Trends: In 2018, production of On-Road Motorcycles in the United States increased 7.5% over 2017. However, production is expected to drop nearly 2% in 2019 from 2018. While demand comes from motorcycles being an affordable transportation option, the U.S. motorcycle market is softening as it loses aging buyers.

A small part of the decline comes from Confederate leaving the market in 2017 to produce electric powered cycles under the name Curtiss Motorcycle Company. Another important change involves Polaris discontinuing its name branded Victory units to concentrate on its Indian motorcycle sales exclusively.

On the flip side, the market in Mexico is flourishing, and Italika expects to build nearly 750,000 units in 2019 (this includes all units offered).

Demand for new fuel-efficient models along with seasonably warm spring/fall weather strengthened sales in 2018. Lower pricing also has led to increased purchases. Production is expected to increase up to 8% thru 2025. **PSR**

Next Time: North America Off-Road Motorcycles

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Brazil/South America Report

By *Fabio Ferraresi*, PSR Director, Business Development, South America

High Expectations for Brazil Construction Equipment



*Fabio
Ferraresi*

The outlook for the Construction Segment in Brazil today is much better than that expected by OEMs at the end of 2018. In fact, this year the Brazilian CE Market grew so much that there was a shortage of machines. Construction companies and rental business point to the initial actions of the new government as the main reason for the recovery. Overall, sales grew 31% in Brazil this year, and forecasts call for continuous growth in 2020-2022, assuming actions of the government continue at the current level.

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

PSR Analysis: Despite the low expectations of OEMs at the end of 2018, PSR forecast double-digit growth for sales and production in 2019, compared to 2018. Sales grew more than production, due to the crisis in Argentina. Now, we have designed two scenarios for 2020-2022 growth. One shows continued growth of reforms at the current pace, and the second is based on the effectiveness of the Infrastructure plan “Mais Brasil” announced by the government that would boost sales and production in Brazil.

BYD May Acquire Ford Plant in São Bernardo

Since conversations between CAO and Ford have cooled, the Chinese company BYD has begun negotiating for the acquisition of the Ford plant in São Bernardo-SP to produce trucks powered by clean energy. The conversations are in the initial stages.

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

PSR Analysis: With a plant in Campinas-SP that produces buses and photovoltaic panels, BYD began looking at the Ford Plant for added production capacity. However, there is no market for EV trucks now and no forecast that justifies such a big plant acquisition. Given this situation, currently talks seem more a marketing play to bring attention to the EV bus solutions than a real, business-driven move.

Ethanol–Gasoline Flex Fuel Threatened in Brazil

The PROCONVE L8 phase that regulates emissions levels in Brazil in 2025 limits O₃ (Ozone) levels very close to zero. The ethanol or ethanol-gasoline engines will face huge challenges to meet the limits of NOMOG+NO_x set at 50mg/km in 2025 and 30 mg/km in 2029 because of the O₃ produced using Ethanol. Because of this situation, a significant investment is required for both Ethanol production and engine development.

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Brazil/South America Report

Continued from page 12

Source: *Jornal do Carro - O Estado de São Paulo* [Read The Article](#)

PSR Analysis: Tightening emissions limits makes sense and the changes are essential for the environment and for the health and well-being of the population. There is no turning back on this path, but there may be short delays in its implementation. On the other hand, the use of ethanol and flex fuel engines only in Brazil will demand concentrated investment that unit volumes may not justify. There is no clear solution yet, and we have to monitor the market growth, evolution of regulations, and technology development to get a better picture of the situation moving forward. **PSR**

Far East: Japan Report

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

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Akihiro Komuro

Hitachi Develops 5T Class Battery-Driven Mini-Excavator

Hitachi Construction Machinery says it has developed a battery-powered mini-excavator prototype (5T class) as a first step in the electrified construction machinery segment that is expected to grow rapidly.

Hitachi has been developing electrified construction machinery for years. In 2006, it was the ZX50UB-2 (5t class) and ZX70B (7t class). In 2010, the ZX35B (3.5t class) was introduced. All are battery-powered models. But several years ago, the demand was not as high as it is today, and the market was limited. More than 100 small and medium-sized electric excavators have been delivered mainly in the Japanese market since the 1990s.

At the same time, they have delivered a large number of electric super-large hydraulic excavators to mine sites around the world

Source: *Hitachi Announcement* [Read The Article](#)

PSR Analysis: The wave of electrification continues to become more significant in the construction equipment market. The demand for electrification of mini-excavators has been strong, especially in Europe. However, there have been many problems, such as high battery costs, sufficient operating time, and long charging times. The prototype model can use both lithium-ion batteries which can operate continuously for up to two hours.

Komatsu exhibited a similar battery-powered mini-excavator at Bauma2019 in April, and it is now in test operation. With two major brands competing for the electric mini-excavator market other companies certainly will follow. The increased competition will drive further performance improvements. **PSR**

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Far East Report

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極東 > 日本:

日立建機、バッテリー駆動式ミニショベルの試作機(5tクラス)を開発

日立建機は12月9日、今後、急速な市場の立ち上がりが予想される電動化建機の技術を確立するために、バッテリー駆動式ミニショベルの試作機(5tクラス)を開発したと発表した。日立建機は、電動化建機の開発・製造に、早い時期から取り組んできた。2006年にバッテリー駆動式のZX50UB-2(5tクラス)、ZX70B(7tクラス)、2010年にはバッテリー駆動式のZX35B(3.5tクラス)を開発し市場に投入したが、当時はまだ現在ほどニーズは高くなく、規模も限定的だった。作業現場の環境改善を目的に中小型機を

ベースとした有線式の電動ショベルは、1990年代の発売以降、主に日本市場で累積100台以上の納入実績がある。また、顧客のランニングコスト低減を目的としたマイニング分野でも世界各地の鉱山現場に多くの有線電動式の超大型油圧ショベルの納入実績がある。今回の試作機は、狭小地でも作業効率の良い後方超小旋回型ミニショベル(5tクラス)をベースとした点と、バッテリー電源と商用電源を併用することができる点が大きな特長だ。ミニショベルの特長を最大限に生かせるよう、バッテリー・システムの小型化と長時間稼働の実現を追求し、開発を通じて、従来のモデルと同等のサイズで収まる技術的なめどがついたという。

出典: 日立建機ニュースリリース

PSR 分析: 電動化の波は建機市場でもいよいよ本格化する。これまでミニショベルの電動化のニーズは強く、特に欧州都市部で顕著だが、高価なバッテリー、十分な稼働時間の確保、充電に掛かる時間の長さ、などの多くの課題があった。今回発表されたモデルはリチウムイオン電池とケーブルを併用でき、バッテリー駆動だけで最大2時間の連続運転ができるということだ。ライバルのコマツは4月のBauma2019で同様のバッテリー駆動式ミニショベルを出展し、現在すでにテスト運用中だ。コマツと日立建機という二大ブランドが競ってこのミニショベル市場の電動化に取り組むことで他社も追従する可能性が高い。もちろん今後も更なる性能向上ニーズは強まっていくだろうが、市販モデルの投入が待たれる。 **PSR**

Far East Asia: South Korea

Doosan Bobcat Plans Acquisition of Three Schiller Brands

Doosan Bobcat said it plans to acquire the assets of three brands of equipment from Schiller Grounds Care: BOB-CAT Mowers, and the Steiner and Ryan brands. The transaction is expected to close by Dec. 31, 2019.

Under the agreement, Doosan Bobcat will acquire the Johnson Creek, Wis., manufacturing facility. Schiller Grounds Care employees working at the Johnson

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Far East Report

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Doosan Bobcat announced a US\$ 26 million-dollar modernization and expansion of its Litchfield, Minn., production facility and the opening of its Global Collaboration Center in downtown Minneapolis, Minn.

Creek location, as well as the distributor and dealer direct field sales and technical support teams, will join the Doosan Bobcat team once the acquisition is finalized. Purchase price was not disclosed.

The acquisition follows two major announcements in November. Doosan Bobcat announced a US\$ 26 million-dollar modernization and expansion of its Litchfield, Minn., production facility and the opening of its Global Collaboration Center in downtown Minneapolis, Minn. These investments are part of Doosan Bobcat's long-term, strategic growth initiatives as a global leader in the compact equipment industry, in addition to demonstrating its long-term commitment to employees and communities in which it operates.

Source: *Lawn & Landscape*

PSR Analysis: To clear up any possible confusion, this announcement means that South Korea-based Doosan Bobcat has acquired three US brands, including one called Bob-Cat.

The North American ZTR market is about 810,000 units a year, US\$ 4.8 billion (about ¥ 523.2 billion), and has grown at an average annual growth rate of 7.8% over the past five years. Doosan Bobcat aims to quickly establish itself in the market based on high brand recognition and dealer capabilities. They secured a sales network as well as a product lineup of the brands they acquired. This will expand the high-demand US dealer network and expand sales of existing products in the region. **PSR**

極東 > 韓国:

斗山ボブキャット、Schiller Grounds Care のRyan, Steiner, Bob-Catを買収

Doosan Bobcatは、BOB-CAT芝刈り機、およびSchiller Grounds CareからSteinerおよびRyanブランドのグラウンドケア機器を買収する計画を発表した。この取引は、2019年12月31日までに完了する予定だ。契約に基づき、Doosan Bobcatは、ウィスコンシン州ジョンソンクリークの製造施設を買収する。買収価格は開示されていない。11月に彼らは、ミネソタ州リッチフィールドの生産施設の2,600万ドルの近代化と拡張、およびミネアポリスのダウンタウンでのグローバルコラボレーションセンターの開設を発表した。これらの投資は、Doosan Bobcatが事業を展開する従業員とコミュニティに対する長期的なコミットメントを実証する。それに加えて、コンパクト機器業界のグローバルリーダーとしての長期的戦略的成長イニシアチブの一部である。

出典: *Lawn & Landscape*

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Far East Report

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PSR 分析: BobcatがBob-Catを買収する、というタイトルに少し混乱したが、韓国Doosan資本のBobcatが米国のBob-Catを含む3ブランドを買収した、という意味だ。北米のゼロ・ターン・モア市場は年間約81万台、48億ドル(約5,232億円)で、過去5年間で年平均7.8%の成長率で成長している。斗山ボブキャットは、高いブランド認知度とディーラーの能力に基づいて、早期に市場で定着することを目指している。彼らは、買収したブランド傘下の製品ラインアップだけでなく販売ネットワークを同時に確保した。これにより、需要が高い米国のディーラーネットワークを拡大し、この地域の既存製品の販売を拡大する。 **PSR**

Southeast Asia: Indonesia Report

Hyundai Motor To Invest US\$1.55 Billion in Car Plant

Korea's Hyundai Motor has signed a basic agreement to build a factory in Indonesia, even though sales in China for Hyundai and its affiliated Kia have been sluggish for some time. Hyundai said it will invest approximately US\$ 1.55 billion in an Indonesian automobile manufacturing plant by 2030, including product development and operating costs. The construction site is Bekasi City on the east side of Jakarta. Production will begin at the end of 2021. The annual production capacity will start at 150,000 units, but it is planned to expand to 250,000 units. Production will be SUVs and multipurpose vehicles (MPV). EVs a for the Southeast Asian market.

Hyundai said it is building the factory to avoid import duties of 5%-80% in the Association of Southeast Asian Nations (ASEAN) region

Source: Reuters

PSR Analysis: Indonesia, like other Southeast Asian countries, is actively promoting the growth of its automobile industry. The growth rate has slowed recently. Sales have been sluggish due to the economic downturn, and new car sales in 2019 may have fallen for the first time in four years. President Joko, who was re-elected in April, is leveraging such as electric vehicle development and export expansion. Locally, Japanese cars hold a very high market share, and this advancement for Hyundai in Korea is a big challenge for Japanese brands. **PSR**

東南アジア > インドネシア:

現代自、初のインドネシア工場に15.5億ドル投資へ

韓国の現代自動車は、インドネシアに工場を建設する基本合意文書に調印した。現代自動車と系列の起亜自動車は、長期にわたり中国で販売が低迷している。現代自動車は、製品開発コストや操業コストも含め、2030年までに約15億5000万ドルをインドネシアの自動車製造工場に投資すると発表した。建設地はジャカルタの東側に位置するブカシ市。2021年終盤に生産を開始する。年間生産能力は15万台でスタートするが、将来は25万台に拡大する計画だ。スポーツ用多目的車(SUV)と多目的車(MPV)を生産する。東南アジア市場向

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Southeast Asia Report

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Despite the overall economic gloom, the Indian government has introduced several measures to revive the economy.

けの電気自動車 (EV) の生産も検討している。

現代自動車は、東南アジア諸国連合 (ASEAN) 地域の5-80%に及ぶ輸入関税を回避するため、工場を建設すると説明。インドネシアや他のASEAN諸国向けの車両を生産する。「世界の自動車市場の需要鈍化に対応」する狙いもあるという。調印式典には、インドネシアのジョコ大統領も出席した。

出典: Reuters

PSR分析: インドネシアは他の東南アジア諸国と同様に自動車産業の成長を積極的に推進している。足元では成長速度が鈍化している。景気悪化を受け販売が低迷しており、2019年の新車販売は4年ぶりに前年割れとなる可能性が出てきた。4月に再選されたばかりのジョコ大統領は早速電動車開発や輸出拡大などテコ入れを進めている。現地は日本車が非常に高いシェアを占めており、韓国のHyundaiにとってこの進出は日本ブランドへの大きなチャレンジとなる。 **PSR**

India Report

By *Ritvik Kulkarni*, Research Analyst-India

Construction Industry Recovery Seen in H2 2020

Read The EXCON 2019 Report Article



*Ritvik
Kulkarni*

PSR Analysis: The Indian Construction Equipment Industry has experienced several difficulties in 2019. A flailing economy, general elections and the NBFC (Non-Banking Financial Company) crisis were the major disruptors in an industry set to be on a mega growth trajectory. These factors combined to pull the construction equipment down by around 10% over 2018.

After dropping to a 5% growth in the March to June quarter, the growth further fell to a mere 4.5% in the July to September quarter, recording its poorest growth in several quarters. A cause of the poor economy showing has been the declining manufacturing output of core industries such as steel. The industrial output of the country contracted 3.8% in October compared to the same month in 2018. These disruptions, accompanied by a stagnation in government infrastructure spending, have led to the slowdown in the construction equipment industry.

Despite the overall economic gloom, the Indian government has introduced several measures to revive the economy. Cutting the corporate tax rates, infusing funds into the shadow banking sector, aggressive privatization strategies for major PSUs such as BPCL and laying out steps to boost infrastructure development have started to stimulate the economy.

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India Report

Continued from page 17

The economy was a major topic of discussion at the recently concluded EXCON 2019 held at Bengaluru. The government is targeting a \$5 trillion economy and as such plans to invest around Rs 3 lakh core by next year in infrastructure projects to develop airports, ports, waterways and smart cities.

The expo saw a slew of new product launches catering to various applications with Schwing Stetter setting the benchmark with 22 launches. Schwing Stetter plans to position itself as a prominent player in the Indian Construction Equipment Industry and displayed products ranging from concrete batching plants to crawler cranes.

Scania India, a nascent player in the commercial vehicle industry, also displayed its new range of NTG tipper trucks for mining applications. JCB India also launched their new ecoXpert 3DX backhoe loader. These launches show a growing confidence by the stakeholders in the revival of the industry.

While 2019 has been negative year for most of the industries in India, 2020 promises to be better. With the government focused on increasing infrastructure spending as part of structural reforms to bolster the economy, recovery in the construction equipment industry looks likely in the second half of 2020. **PSR**

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Russia Report

By *Maxim Sakov, Market Consultant, Russia*

AutoVAZ Plans Buyout of GM Share in Joint Venture



*Maxim
Sakov*

AutoVAZ has agreed to purchase GM's 50% share of the GM-AutoVAZ joint venture, located in Tolyatti. The restructured JV will become a 100% affiliated company of AutoVAZ Group. Details of the deal were not disclosed.

Under the agreement, the plant, belonged to JV, will continue production and sales of Niva SUVs under the Chevrolet brand. Later, the vehicle will get Lada badges. No changes are planned for the plant personnel. The contracts with the suppliers and dealers are not changing. Plans call for the GM-AutoVAZ company to be renamed.

Read The Article

PSR Analysis: With this move, General Motors has sold its last Russian asset, following the company's departure from Russia in 2015. During 2018, the company made 31,000 Chevrolet Niva SUVs.

Russian Car Market Tumbles as Credit Tightens

The Russian car market, which was rapidly growing because of a consumer credit boom, has tumbled. In November, the sales decrease reached a record for the year, according to the Association of European Business (AEB). During the month, sales of cars reached 156,848 vehicles, down 6.4% from a year ago.

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Russia Report

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The trend on the automotive market has changed dramatically at the end of the year. At the beginning of October, the AEB forecasted the fall in sales of about 2.6%. But today, analysts see the market decreasing by 6%.

The most significant factor in this change is stricter conditions on consumer credit. The people have less money in their hands, and it reduces demand for long-term merchandise.

In 2020, the market also cannot get out of the crisis, according to the forecast of AutoVAZ: the sales will get down to 1.7 million cars. It is 500, 000 units less than last year. [Read The Article](#)

PSR Analysis: The State has reduced its support measures for passenger cars and SUVs, and the demand from individuals is dropping. The pent up demand has been filled, and the credit opportunities are mostly closed. The car market could face hard times next year.

Russia To Start Mass Production of Cheap EVs in 2020

Early in 2020, Russia plans to start mass production of inexpensive electric cars. New Zettas will be incredibly cheap. It's expected that the price of the new car will be around €6400. Furthermore, the vehicle will be able to travel a large distance without a battery recharge.

As announced, the car will have three doors, a maximum speed of 120 km/hour and travel up to 560 km on single battery charge. The car will be assembled with 99% Russian components, except for the battery, which will be imported from China. Production of the new car will be in Tolyatti. Initial expected production volume will be up to 15,000 units/year. After a few years, Zettas will be sold abroad. [Read The Article](#)

PSR Analysis: With its very competitive price and interesting outlook, this vehicle has a good export potential. In Russia, the prospective is not so good, because the infrastructure for electric cars is almost nonexistent. The questions are battery life and charge time. **PSR**

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