CV Link™ Update *Bulletin*

January 14, 2025

Q4 2024 REVIEW AND FORECAST

Power Systems Research
Data · Forecasting · Solutions™

www.powersys.com | +1-651-905-8400 | info@powersys.com

CV Link™ is a comprehensive market database containing forecasted commercial vehicle production volumes and original equipment manufacturers, vehicle platforms and regional economic analysis. This document outlines important forecast trends as well as the additions and enhancements applied to the database in the fourth quarter of 2024.

Inside

Someone once said,

Data Without Analysis Is Just a Bunch of Numbers.

We agree. That's why our proprietary databases are only the starting point for the way we serve you.

We start with our numbers, and they drive our solid analysis, forecasting and strategic solutions to give you the results you need.

Solid data. It's the starting point that makes our business intelligence different from most consultants.

Since 1976, we've been building and maintaining databases that track global production of equipment powered by engines and alternative sources, such as electric motors and hybrid packages.

If you need data, forecasting or strategic market analysis for key power industry segments, let's talk.

You can reach us at info@powersys.com or www.powersys.com, or +1 651.905.8400.

Do it today. Why wait for success?

Power Systems Research
Data · Forecasting · Solutions

1365 Corporate Center Curve | St. Paul, MN 55121

+1 651.905.8400 | www.powersys.com

St. Paul, USA | Beijing, China | Brussels, Belgium | Detroit, USA | Moscow, Russia | Pune, India | Sao Paulo, Brazil | Tokyo, Japan

I. Executive Notes

A Waiting Game on Tariffs

With the start of 2025, many U.S. companies are planning for anticipated changes as the incoming presidential administration takes office.

An important looming question for the manufacturing sector is how increased tariffs on goods imported into the U.S. from China as well as other U.S. trade partners will affect their operations over the next few years. One of the Trump Administration's stated key objectives for the tariff changes is to protect and grow America's manufacturing sector.

While we wait to see what new tariff policies will be implemented, it is helpful to review what happened in 2020 as sweeping changes were made, specifically on U.S. imports from China.

Author

Joe Zirnhelt is President and CEO of Power Systems Research.

The net effect of those tariffs was to cause a shift in final production from China to other low-cost countries in Asia or Latin America countries. These shifts in manufacturing resulted in U.S. imports from those countries surging over the last few years while U.S. imports directly from China have softened.

Many of the parts used in these final products were still produced in China but the actual assembly/exporting country faced a lower tariff compared to the scenario where China would produce and directly export the finished product to the U.S.

The key point here is that Chinese manufacturers have actually developed a workaround solution to avoid the higher tariffs. The net result has meant more costs associated with moving those manufacturing operations outside of China and ultimately higher costs passed along to U.S. based consumers.

All that being said, it does not feel like there was a lot of manufacturing that moved back to the U.S. as a result of these increased tariffs. From an objective

standpoint the increase of tariffs on Chinese goods did not necessarily mean more jobs or more manufacturing in the U.S. The debate on tariffs is a complicated puzzle but it is clear there can be unintended consequences involved when considering ways to adjust tariffs.

It will be interesting to follow the tariff policies that are implemented in early 2025. Depending on the scope and degree of tariff changes, this may cause further shifts in manufacturing over the next several years.

At Power Systems Research, we are aware of the implications of tariff policy changes and will continue to follow relevant shifts in manufacturing operations as they develop. PSR will continue to update our databases to reflect these changes in production facilities as we identify them.

Today, there are many forces at play in the current environment for the worldwide production of powered equipment. As we move forward, you can be assured that Power Systems Research will continue to monitor developments and reflect this knowledge in our data and intelligence. Our mission is to keep you as informed as possible while we support your market planning and forecasting initiatives.

As we prepared this Q4 2024 update, we incorporated important insights we have gathered during the quarter to provide our best outlook for 2025 as well as our five-year forecast.

We hope you find this database update and these forecasts of value at this important time. As always, we appreciate your feedback and continued dialogue as you review this latest update.

If you are facing new challenges or issues that require data-driven solutions, talk to us. We can be an important resource.

Thanks for reading and for being a valued client of Power Systems Research. **PSR**

II. Introduction

Power Systems Research (PSR) has developed and maintained comprehensive market data specific to the power products and drivetrain industry since 1976. Because accurate and reliable market data has always been at the heart of its activities, PSR has developed a unique family of highly specialized databases. These core databases include:

- **EnginLink™** – Engine Production and Forecast Database
- **OE Link™** – Original Equipment Production and Forecast Database
- **CV Link™** – Commercial Vehicle Production and Forecast Database
- **PartsLink™** – Original Equipment Population Database

The **PowerLink™ 3.0** dashboard effectively combines all market databases into one Internet-based tool. Using this system, subscribers can easily access, organize and download the latest engine-powered market data anytime, anywhere in the world.

The PowerLink™ 3.0 dashboard has extensive reporting capabilities and allows for customization and report distribution within your organization. This innovative system sharpens your business and planning strategies by finding hidden opportunities and targeting potential customers. The PowerLink™ 3.0 dashboard is your link to a competitive advantage in the marketplace.

CV Link™ is continuously updated; this Update Bulletin reflects changes made to CV Link™ during the third quarter of 2024. Included in this Update Bulletin are CV Link™ database notes listing significant data modifications and an explanation of our research and forecast methodology. Additional Power Systems Research initiatives also are outlined here.

Please feel free to circulate these research notes to your colleagues and internal data users

If you have any questions regarding this update, please contact us via email at support@powersys.com or by phone at 651-905-8400. Our support email account is monitored 8-5 CDT M-F by associates at our corporate offices and at our data center.

Thank you for your continued support of Power Systems Research. **PSR**

III. CV Link™ Data Update Notes

New Assumptions for Q4 2024 Medium/Heavy Vehicle Forecast

NORTH AMERICA

Bus Assembly in Mexico: **Beiqi Foton** started production of the BJ6123 bus in Jalisco Mexico in January 2024. The bus is the AUV platform and is equipped with the Cummins L9 engine. There is speculation that Foton will establish another plant in Mexico that will also be able to produce electric commercial vehicles.

Battery Electric Trucks. Medium Duty: Power Systems Research (PSR) revised the production of battery electric medium duty trucks downward through 2026 due to forecasted lower adoption rates. Longer term forecast after 2026 remaines relatively unchanged. This forecast revision was not the result of the election outcomes in the United States but rather lower adoption rates in the near term.

Electric Vehicles International (EVI). Upfitter: EVI is a medium duty truck upfitter rather than a chassis producer. PSR removed historical and future production for this brand. EVI outsources their chassis from OEMs and installs their electric powertrains in the chassis.

International (Navistar). Rebrand: Effective Oct. 1, 2025. Navistar will be rebranded as International Motors. According to the company, this effort to build one International brand signals a stake in the ground that the strategy revolves around solutions.

Author

Chris Fisher is the Senior Commercial Vehicle Analyst at Power Systems Research.

Plant Expansion: **Kenworth** announced the start of construction on a $89 million, 45,825 square-foot plant expansion that will include a state-of-the-art chassis paint system to its Class 8 truck assembly plant in Chillicothe.

Lion Electric. Joliet Plant: Lion's plant in Joliet, IL, closed in early December primarily due to high costs and lower sales. Electric truck and bus production will likely remain in Canada at least for awhile.

Nikola. Production Forecast: PSR has moved the production of the Nikola TWO fuel cell trucks start of production into 2025. The battery electric Nikola TRE will likely not restart production until 2025.

P7-C Truck: **REE** introduced production of their class 4 battery electric truck into production in Q4 2024. REE is headquartered in Tel Aviv and will use Roush Automotive's production facility in Detroit as a contract manufacturer. Other models and weight classes are expected to be introduced during the next few years.

Workhorse. Production Revisions: PSR reduced the production volume history and forecast for Workhorse. During the past few years, Workhorse has faced significant delays and challenges in scaling its production capacity. Workhorse's overall struggle to meet ambitious production targets, has led to limited vehicle output. Production on the W34 will not begin before 2025.

EUROPE

Heuliaz Bus. GX137 Hydrogen Bus: Heuliaz plans to introduce the GX337 fuel cell hydrogen transit bus into production in 2025. The buses will be produced for Lorient Agglomeration with a plan build of 19 buses next year. The buses will be powered by a 100 kW Hyundai fuel cell and a 69 kWh FPT Industrial battery.

Annonay Plant: **Heuliaz** plans to introduce the GX 337 battery electric and fuel cell hydrogen transit bus into production at the Annonay plant in 2025.

Iveco. E-Way Bus: Iveco will introduce their battery electric E-Way bus into production at the Annonay plant in 2025.

E-Way H2 Bus: Iveco Introduced a hydrogen fuel cell E-Way bus into production at the Annonay and Foggia plants in 2024.

Mercedes. eIntouro: Mercedes plans to introduce the intercity eIntouro battery electric bus into production in France in late 2025 and Turkey in early 2026. The buses will use the CATL LFP batteries along with a ZF motor.

Ulm Plant: **Mercedes** has ended production of the Citaro ICE buses, and the production of the ICE transit buses has been transfered to the Ligny bus plant in France. The Ulm plant will continue to produce the battery electric buses.

Sileo. Bankruptcy: Sileo Bus entered administration in mid-2022 thus ending production in Salzgitter Germany.

VDL. Bus Upgrades: VDL no longer sells internal combustion engines buses. VDL upgraded the Citeas transit bus to a battery electric offering only. For motorcoaches, VDL ended production of the Synergy platform and upgraded the Futura platform which use DAF ICE engines.

Volvo. 8900 Battery Electric Bus: In 2025, Volvo will start production of their 8900 battery electric transit bus for select markets in Europe. Volvo will produce the chassis based upon their B series platform and their body partner MCV will provide final assembly.

SOUTH AMERICA

Mercedes. Atego Mercedes introduced the Atego 19.33 and 31.33 heavy trucks into production in Brazil in 2024.

Accelo **Mercedes** introduced the Accelo 1137, 1417 and 917 medium trucks into production in Brazil in 2024

Scania. Trucks and Bus Adds. Scania introduced the G450-NG heavy truck and the K230 electric bus into production in Brazil in 2024.

Volkswagen. Trucks Adds. Volkswagen introduced the 33.260 (8x4) heavy truck and the 6.170 medium truck into production in Brazil. The 6.170 superseded the 6.160.

SOUTH ASIA

No Significant Changes this Quarter

GREATER CHINA

Baotou Bei Ben. New Models: Bei Ben introduced the ND4250 and ND4250-1 battery electric heavy truck into production. Initial production is relatively low but expected to improve later in the forecast period.

Beiqi Foton. Bus Assembly in Mexico: Beiqi Foton started production of the BJ6123 bus in Jalisco Mexico in January 2024. The bus is the AUV platform and is equipped with the Cummins L9 engine. Their is speculation that Foton will establish another plant in Mexico that will also be able to produce electric commercial vehicles.

JAPAN AND KOREA

No Significant Changes this Quarter

PSR

IV. Forecast Trends

2025 NA Production Expected To Decline 4.3%

North America

Medium and heavy commercial vehicle production is expected to decline by 4.3% this year over 2024. While sales in the class 8 segment are expected to decline by around 5% this year, the OEMs continue to prepare for the anticipated pre-buy leading up to the GHG emission regulations starting in 2027. The OEMs are expected to slow production in the first half of the year as truck inventories are currently at high levels.

The freight market remains weak, and fleets have concerns about purchasing new trucks in this economic cycle. Production is expected to ramp up again in mid-2025. Demand in the medium truck segment remained fairly strong in 2024 but is expected to slow somewhat in 2025. The impact of the incoming Trump Administration with regard to the phase 3 emission regulations scheduled to take effect for MY 2027 trucks, is unknown at the time of this writing.

Europe

Due to continued truck overcapacity in the freight market and some on-going issues with the supply chains for both the OEMs and the upfitters, Power Systems Research (PSR), along with the majority of the industry, believe that 2025 truck demand will further decline during the first half of 2025. PSR expects improvement in 2026 and 2027 as fleets will need to replace their older trucks purchased in 2022 and 2023. Depending on economic conditions and timing, PSR believes medium and heavy truck production in Europe will decline around 2% in 2025 before improving in 2026 and 2027.

South Asia

After a strong level of vehicle replacement during the past few years, commercial vehicle production is expected to increase by 3.7% in 2025 compared with 2024.

In India, truck and freight capacity has mostly rebalanced and MHCV production is expected to increase by 4% in 2025 compared with 2024. Demand is expected to grow in mid-term owing to a strong macroeconomic environment, healthy fleet utilization levels, Government capex on infrastructure projects, and stable freight demand. The CV industry posted muted performance in Q2 CY24 owing to seasonal and temporary factors like extreme weather conditions, uneven distribution of rainfall, general elections and slow take-off in government capex.

South America

Medium and heavy commercial vehicle production is expected to increase by 4.9% in 2025 after a very strong 2024 in Brazil. Production in Argentina is expected to increase by 29% as the economy is improving and inflation is down significantly from a year ago. MHCV production in Brazil is expected to increase by 4.4% in 2025. Vehicle production in Columbia is forecasted to decline by 25% in 2025 as General Motors has ceased operations due to plant overcapacity and unprofitability.

Japan/Korea

Medium and heavy commercial vehicle production in Japan and South Korea is expected to decline by 7.3% in 2024 over 2023. Commercial vehicle production is expected to decline by 8% in Japan and 2.2% in South Korea in 2024. The supply chain has shown relatively good improvement which led to stronger than expected production levels in 2023 especially in South Korea. Demand for commercial vehicles in Japan has slowed in 2024 and their traditional export markets are being pressured by high inflation and interest rates.

Greater China

Medium and heavy commercial vehicle production is expected to decrease by 2% in 2024 over 2023. Vehicle demand has stabilized and has been improving. The Chinese economy will continue to face economic headwinds during the next few years. The economic issues are primarily fueled by deflation, bankrupt property developers and local government debt. In Taiwan, medium and heavy vehicle production is expected to be flat this year over 2023. **PSR**

V. Research Methodology

Power Systems Research (PSR) Research Methodology

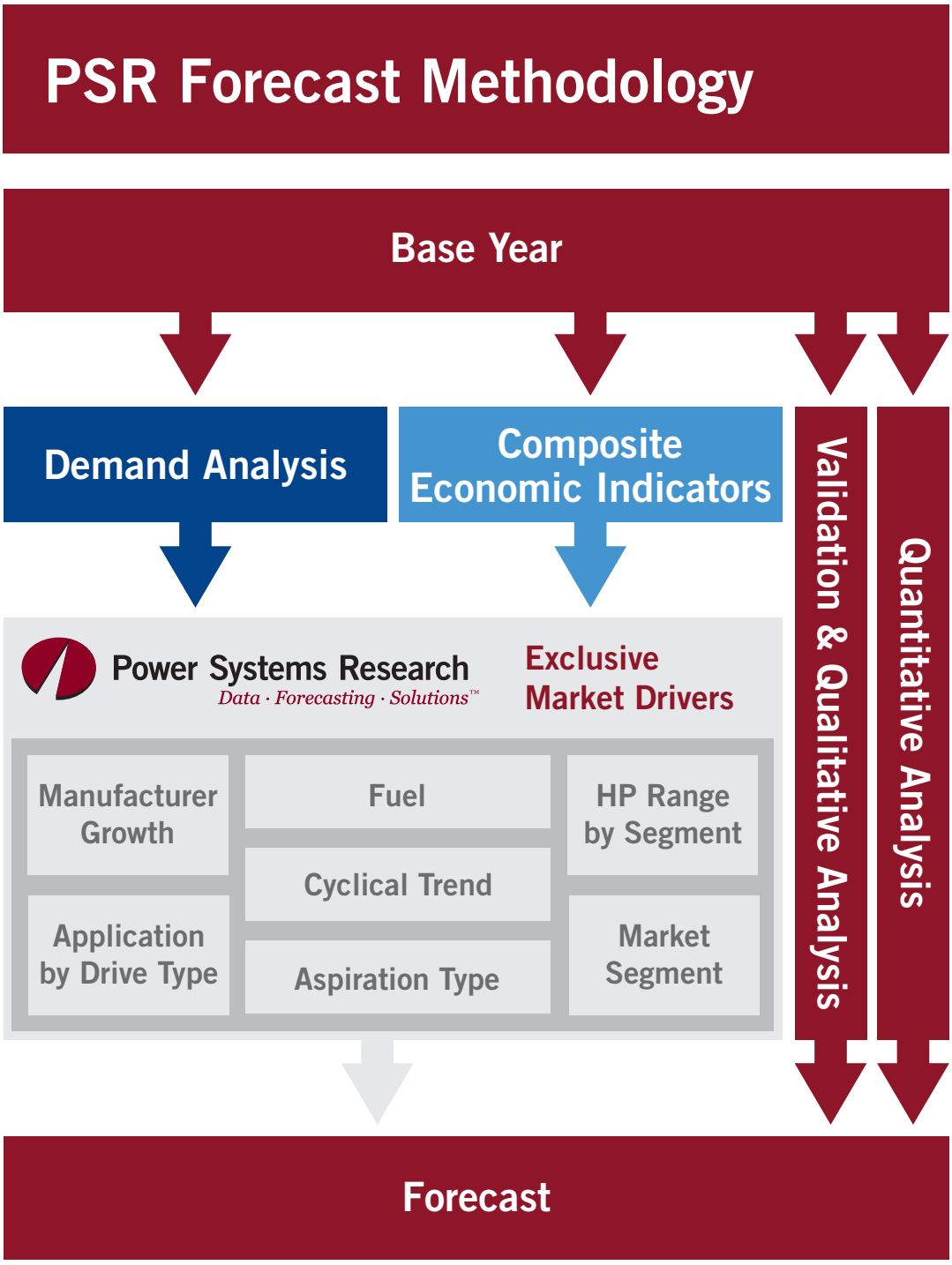
Research begins with the gathering of information from primary and secondary sources. Next, the PSR analyst team reviews and validates all data against industry benchmarks. If our analysts discover anomalies in the data, additional research and validation is performed before publishing.

PSR RESEARCH METHODOLOGY

VI. Forecast Methodology

Power Systems Research (PSR) Forecast Methodology

The analysis begins with the Base Year and key historical data then adds current and future economic indicators and market demand. Next, our exclusive market drivers are entered and the Power System Research proprietary algorithm is applied. Extensive analysis and discussion by our PSR Analyst team validates and produces the forecast.



CONTACT US

Purchasing and Inquiries

Headquarters
St. Paul, USA
+1 651 905 8400
info@powersys.com

Detroit, USA
+1 734 545 0474
infode@powersys.com

Beijing, China
+86 10 5737 9201
infocn@powersys.com

Campinas, Brazil
+55 19 3305 5657
infosa@powersys.com

European Headquarters
Brussels, Belgium
+32 2 643 2828
infobr@powersys.com

Frankfurt, Germany
+49 160 1807 044
infoge@powersys.com

Pune, India
infoin@powersys.com

Tokyo, Japan
+81 90 9139 0934
infojp@powersys.com

About Power Systems Research

Power Systems Research (PSR), established in 1976, is the leading source of data, analysis and forecasting on the global production of engines and engine-powered equipment, including class 8 vehicles. One of its databases, EnginLink,™ includes production figures down to the model level for OEMs in key market segments, such as commercial vehicles. PSR's global research network includes eight offices and stretches across 200 countries and four continents.

Power Systems Research
Data · Forecasting · Solutions™