

Sales of off-highway electrified components to soar to \$17 billion by 2030

- Off-highway electrified powertrain components prices expected to plateau in 2023, but revenues to soar from \$9 billion in 2023 to almost \$17 billion by 2030
- Forklifts, boom lifts and scissor lifts continue to dominate off-highway electrified market

London, 12th June 2023 – Research by Interact Analysis shows the global market for off-highway powertrain components will continue to expand, with off-highway electrified components revenue set to climb from \$9 billion in 2023 to nearly \$17 billion by 2030, alongside ‘relatively good growth’ in the off-highway vehicles market.

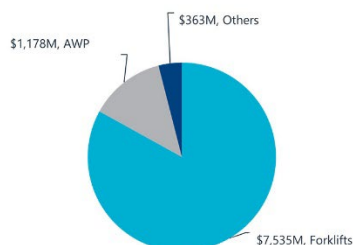
In its latest report ‘Electrified Off-Highway Powertrain: An analysis of global component pricing and architecture’, Interact Analysis examines the outlook for the market, finding that, while electrified off-highway powertrain component revenues are expected to rise as more vehicles are electrified, 2023 prices could plateau.

Based on feedback from suppliers and data gathered, off-highway powertrain components prices increased from 2020 to 2022 (with the exception of fuel cells), but pricing appears to have reached a plateau and 2023 pricing is expected to be similar to 2022. Price decline is forecast to return from 2024, influenced by falling battery prices, with a slight uptick anticipated in 2028, caused by increased battery pack size as larger machines electrify.

A total of 27% of off-highway vehicles were estimated to be fully electric in 2022, and 60V and under machines dominated the market. Forklifts will also continue to dominate when it comes to off-highway electrified vehicle component revenues, because of the high number that are already electrified (63% in 2022), with aerial work platforms (AWPs), such as boom and scissor lifts also generating a significant proportion of the total \$9 billion total revenue of electrified components in off-highway during 2023.

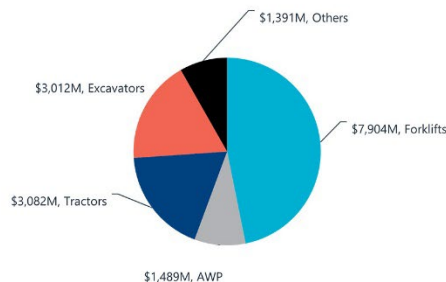
However, the proportion of vehicle revenue accounted for by forklifts will fall considerably over the coming years, with excavators and tractors in particular responsible for a much larger share of the market in 2030 than in 2023. The off-highway electrified vehicles market is due to almost double over the period under analysis, rising to nearly \$17 billion by 2030. This means that sales of forklifts components will also increase from over \$7.5 billion in 2023 to more than \$7.9 billion in 2030, despite a sharp fall in market share.

2023 Component Revenue by Vehicle Type



Source: Interact Analysis

2030 Component Revenue by Vehicle Type



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Off-highway electrified component revenue will jump from \$9 billion in 2023 to almost \$17 billion in 2030

Due to their low intensity duty cycles and easy charging, it is no surprise that materials handling solutions such as forklifts, boom lifts and scissor lifts are electrifying fast. Mini excavators are also providing an opportunity for sales of electrified components, given the higher penetration forecast and a large number of models on the market. Meanwhile, many areas of the off-highway market are much slower to move towards full electrification, with the figure for large off-road machinery remaining below 1% electric at present and expected to be a single-digit percentage for most off-highway vehicles even in 2030.

Battery packs currently offer the largest revenue opportunity in off-highway vehicle component sales, accounting for 38% of 2023 revenue, followed by motors (25%) and inverters (23%). For off-road vehicles, the share of battery packs tends to be lower than on-road because on-site charging requires less margin for error, low speeds of movement require less stored energy, and some off-highway vehicles are used intermittently rather than continuously. However, motors and inverters often have a higher share of the cost in off-road because they require both traction and work functions and so need at least two motors (often delivering high power), and in many cases two inverters.

Commenting on the report, Jamie Fox, Principal Analyst at Interact Analysis, says, “The off-highway market is some way behind on-highway when it comes to electrification. Even in 2030, only 40% of off-highway equipment will be electrified and for larger vehicles the percentage will be much lower.

“Forklifts and AWP’s currently dominate the market but are not necessarily the most attractive target for component vendors, as they use more commoditized products with a low price and low profit margin, produced by a wider variety of suppliers.

“Beyond 2030 larger off-highway vehicles will electrify as battery prices and vehicle prices drop, infrastructure develops further, customers become more used to electric vehicles, environmental legislation increases, and economies of scale improve. Component revenue, therefore, looks set to continue growing strongly to around 2040.”

About the Report:

This new market report covers powertrain pricing and architecture of electrified off-highway equipment. It covers, among others, detailed pricing data by region and vehicle type, demand for different powertrain architectures and technical trends and new vehicles in the component space.

About Interact Analysis

With over 200 years of combined experience, Interact Analysis is the market intelligence authority for global supply chain automation. Our research covers the entire automation value chain – from the technology used to automate factory production, through inventory storage and distribution channels, to the transportation of the finished goods. The world’s leading companies trust us to surface robust insights and opportunities for technology-driven growth. To learn more, visit www.InteractAnalysis.com