

LNG Vehicle Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> ****Industry:**** Commercial Vehicles & Fleet (Automotive & Transportation)
> ****Source:**** <https://www.mordorintelligence.com/industry-reports/lng-vehicle-market>
> ****Scraped Date:**** 2026-09-17

Executive Market Summary

Market Metric	Details
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Base Market Size	USD 33.70 billion
Projected Forecast (2031)	USD 33.70 billion
Growth Rate (CAGR)	3.21 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

![Major players in LNG Vehicle industry](images/chart_2.png)

![LNG Vehicle Market Size](images/chart_3.png)

![LNG Vehicle Market Share by Vehicle Type, 2025](images/chart_4.png)

![LNG Vehicle Market Share by Tank Capacity, 2025](images/chart_5.png)

![LNG Vehicle Market Growth Rate by Region](images/chart_6.png)

![LNG Vehicle Market Concentration](images/chart_7.png)

![Icon](images/chart_8.png)

![footer background image](images/chart_10.png)

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![ESOMAR](images/chart_17.png)

![GPTW](images/chart_19.png)

Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market OverviewStudy Period | 2019 - 2031 |
Market Size (2026) | USD 33.70 Billion |
Market Size (2031) | USD 39.47 Billion |
Growth Rate (2026 - 2031) | 3.21 % |
Fastest Growing Market | Asia-Pacific |
Largest Market | Asia-Pacific |
Market Concentration | Medium |
Major Players*Disclaimer: Major Players sorted in no particular order

Market Overview

LNG Vehicle Market Analysis by Mordor Intelligence The LNG vehicle market size was valued at USD 32.65 billion in 2025, is estimated at USD 33.70 billion in 2026, and is projected to reach USD 39.47 billion by 2031, at a CAGR of 3.21% during the forecast period (2026–2031). Current expansion stems from enforceable emissions mandates, active corridor build-outs, and measurable fleet economics rather than speculative demand. Long-haul freight operators continue to anchor volumes, yet growth momentum is shifting toward medium-duty and urban distribution use cases as range-extending cylinder technology matures. Supply-side competition centers on repurposed diesel platforms, while value migrates to fuel-system specialists and infrastructure owners who secure recurring revenue streams. Regional adoption remains uneven: Asia-Pacific accounts for nearly half of global deliveries, North America leverages abundant gas supply and incentives, and Europe balances bio-LNG pathways with stringent zero-emission targets.

Key Report Takeaways* By vehicle type, heavy-duty trucks led with 53.29% of revenue share in 2025. Medium-duty trucks recorded the quickest expansion at a 6.89% CAGR through 2031.

* By application, freight transport accounted for 49.47% of revenue share in 2025, while personal vehicles are projected to grow at a 6.72% CAGR by 2031.

* By tank capacity, 300–500 kg systems accounted for 49.27% of revenue share in 2025; tanks above 500 kg are projected to grow at a 7.19% CAGR through 2031.

* By drive system, conventional engines accounted for 85.38% of revenue share in 2025, whereas hybrid powertrains are advancing at a 7.29% CAGR through 2031.

* By geography, Asia-Pacific accounted for 48.49% of revenue share in 2025 and is set to grow at a 7.42% CAGR through 2031.

Key Market Trends

Market Trends and Insights Drivers Impact Analysis of LNG Vehicle Market | Driver | (~) % Impact on CAGR Forecast | Geographic Relevance | Impact Timeline |

Global HDV CO₂/NO_x Rules | +0.8% | Europe, North America, China | Medium term (2–4 years) |

Expanding LNG Corridor Network | +0.6% | Europe, China, United States | Long term (≥ 4 years) |

Diesel-to-LNG Fuel Cost Edge | +0.5% | Asia-Pacific core, spill-over global | Short term (≤ 2 years) |

Incentives and Toll Relief | +0.4% | Europe, California, select Asia-Pacific regions | Medium term (2–4 years) |

China 3,500 km Dual-Cylinder Tech | +0.3% | China dominant, expanding across Asia-Pacific | Long term (≥ 4 years) |

Europe Bio-LNG Blend Mandates | +0.2% | Europe core, limited North America | Long term (≥ 4 years) |

Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The market is characterized by moderate fragmentation. Prominent original equipment manufacturers (OEMs), including Volvo, Paccar, and Sinotruk, collectively accounted for a significant share of shipments. These companies have focused their strategies on reengineering existing diesel chassis to optimize manufacturing cost efficiencies. This approach allows them to leverage established production processes while adapting to the growing demand for LNG-powered vehicles. Additionally, fuel-system providers such as Westport Fuel Systems, Hexagon Agility, and Chart Industries have achieved notable differentiation in the market by offering advanced cryogenic tank, pump, and injector technologies, which contribute to enhanced vehicle performance and operational efficiency.

Vertical integration is increasingly shaping the competitive landscape of the market. Companies such as Shell and Clean Energy Fuels have been actively expanding their network of fueling stations while securing upstream gas supplies. This strategy ensures price stability, which in turn supports the adoption and sales of LNG-powered vehicles. Furthermore, Daimler has entered into a partnership with Linde to develop liquid-hydrogen supply solutions, positioning itself to address potential shifts in the market toward alternative fuel technologies. Collaborative efforts in intellectual property, such as the HPDI venture between Volvo and Westport, are playing a critical role in accelerating development cycles and mitigating associated risks.

Competition within the market is increasingly centered on lifecycle greenhouse gas (GHG) performance and total cost of ownership (TCO) rather than the initial purchase price of vehicles. OEMs are placing significant emphasis on the compatibility of their vehicles with bio-LNG and the reduction of methane slip, which are key factors in improving environmental performance. At the same time, suppliers are focusing on advancements in boil-off suppression technologies and extending vehicle range, which enhance the overall value proposition for end-users. The barriers to entry in this market remain moderate. While the development of truck platforms requires substantial capital investment, component supply chains are relatively accessible, and regulatory homologation processes are well-established in major markets.

LNG Vehicle Industry Leaders* FAW TRUCKS CO., LTD.

* Sinotruk (CNHTC)

* Volvo Group

* TRATON SE

* Paccar

* *Disclaimer: Major Players sorted in no particular order

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Component Component 3 Scope Of The Report Bottom

Global LNG Vehicle Market Report ScopeThe scope of the report includes vehicle type, application, tank capacity, drive system, and geography. By vehicle type, the market is segmented into medium-duty trucks, heavy-duty trucks, and buses. By application, the market is segmented into freight transport, public transport, personal vehicles, and other applications. By tank capacity, the market is segmented into below 300 kg, 300–500 kg, and above 500 kg. By drive system, the market is segmented into conventional engine and hybrid engine. By geography, the market is segmented into North America, South America, Europe, Asia-Pacific, and the Middle East and Africa.

By Vehicle TypeMedium-duty Trucks |
Heavy-duty Trucks |
Buses |

Segmentation Accordion Item

GeographyNorth America | United States |
| Canada |
| Rest of North America |
South America | Brazil |
| Argentina |
| Rest of South America |
Europe | Germany |

- | United Kingdom |
- | Spain |
- | Italy |
- | France |
- | Netherlands |
- | Rest of Europe |
- Asia-Pacific | India |
- | China |
- | Japan |
- | South Korea |
- | Indonesia |
- | Rest of Asia-Pacific |
- Middle East and Africa | United Arab Emirates |
- | Saudi Arabia |
- | Turkey |
- | Egypt |
- | South Africa |
- | Rest of Middle East and Africa |

Frequently Asked Questions

What is the projected value of the LNG vehicle market by 2031?

It is expected to reach USD 39.47 billion by 2031 based on the current 3.21% CAGR forecast.

Which region leads current LNG vehicle adoption?

Asia-Pacific holds 48.49% of 2025 global revenue and maintains the fastest 7.42% CAGR through 2031.

Which vehicle class is growing fastest within this sector?

Medium-duty trucks are expanding at a 6.89% CAGR as fleets deploy LNG beyond traditional long-haul roles.

What technology mitigates range anxiety for LNG trucks?

Dual 1,500-liter cryogenic cylinders enable about 3,500 km per fill, matching diesel range for inter-city freight.

What factor most restrains future LNG truck growth in Europe?

Rapid cost declines and policy support for zero-emission battery-electric trucks are expected to erode LNG's competitiveness over the medium term.