



Navigating the Future: Upcoming Regulations Will Transform Heavy-Duty Trucking - Part 1: EU Regulations

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As the global effort to combat climate change intensifies, the heavy-duty transportation sector is under increasing pressure to reduce its carbon footprint. Both the European Union (EU) and the United States (US) have introduced stringent environmental regulations that will reshape the landscape of heavy-duty trucking in the coming years. These regulations, aimed at drastically cutting greenhouse gas (GHG) emissions, signal a major shift toward cleaner technologies, including plug-in hybrid and zero-emission vehicles. This blog explores and summarizes the upcoming regulations in the EU and the US and how they will impact the heavy-duty trucking industry.

EU Regulations: Accelerating Toward Net Zero

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The EU's Climate Ambitions

The European Union has set ambitious targets to achieve net-zero emissions by 2050, with the transportation sector playing a critical role in meeting these goals. As part of this effort, the EU has introduced stricter CO2 emission standards for heavy-duty vehicles, significantly raising the bar for manufacturers and fleet operators.

Previous and New Emission Targets:

- **2025:** -15% reduction in CO2 emissions (previous target)
- **2030:** -30% reduction in CO2 emissions (previous target)
- **2030:** -45% reduction in CO2 emissions (new target)
- **2035:** -65% reduction in CO2 emissions (new target)
- **2040:** -90% reduction in CO2 emissions (new target)

These new targets reflect the EU's urgency in addressing the environmental impact of heavy-duty transportation, which has been identified as a key area where significant improvements are necessary.

The Role of Plug-In Hybrids in Meeting EU Targets

Starting in 2024, the EU will integrate plug-in hybrid technology into its Vehicle Energy Consumption Calculation Tool (VECTO) system. VECTO is a standardized method for measuring and reporting the fuel consumption and CO2 emissions of trucks and buses within the European Union. By including plug-in hybrids, the EU acknowledges their essential role in achieving the targeted 30% CO2 reduction by 2030 compared to 2019 levels.

Conclusions

The upcoming environmental regulations in the EU represent a decisive shift towards a greener, more sustainable heavy-duty trucking industry. By setting ambitious CO2 reduction targets and mandating the transition to zero-emission vehicles, these regulations will significantly impact how trucks are designed, manufactured, and operated in the coming decades.

For fleet operators, the adoption of technologies like plug-in hybrids will be crucial in navigating this transition. These vehicles offer a flexible and cost-effective solution that meets regulatory requirements while maintaining the operational capabilities essential for long-haul and demanding transport routes.

As the regulatory landscape continues to evolve, staying informed and proactive will be key to ensuring compliance and capitalizing on the opportunities presented by these new standards.

References

- **European Commission.** "[CO2 emission performance standards for heavy-duty vehicles.](#)" 2023.