

# HORIZON UNVEILS WORLD-LEADING 400KW FUEL CELL

*Horizon Fuel Cell recently showcased the world's highest power PEM fuel cell at the Fuel Cell Technology Expo in Foshan China (CHFE2024): a mind-blowing 400kW*

SINGAPORE, November 12, 2024 /EINPresswire.com/ -- [Horizon Fuel Cell](#) recently unveiled its new VLS-IV 400kW fuel cell, offering material advantages in fuel cell applications, such as high power output, low cost, long lifespan, and high fault tolerance. This groundbreaking product has the potential to reduce hydrogen consumption in fuel cell heavy trucks by up to 20%, in addition to providing ample power for the heaviest on-road trucks and various other heavy equipment with challenging decarbonisation pathways.



The graphic features a central image of a silver Horizon Fuel Cell Stack. Above it, a blue arrow points upwards with the text: 60% Single Stack Power, 12% MEA Performance, and 10% Stack Power Density. Below it, a blue arrow points downwards with the text: 30% Cost Per kW, 29% Pt Loading, and 10-20% Hydrogen Consumption. The stack is surrounded by icons representing various applications: a crane, a forklift, a truck, a train, a ship, a power plant, a house, and a data center. The Horizon logo is at the bottom, with the text 'Horizon Fuel Cell Technologies' and 'Horizon logo file' below it.

The new VLS-IV series fuel cells leverage the unique advantages of the company's patented graphite-metal hybrid bipolar plate technology, which sets the standard in high-power, heavy duty fuel cells, bringing to market substantial technological innovation since the launch of the [VLS-III series](#) in 2021.

This new fuel cell from Horizon sets the stage for hydrogen applications to enter a new era characterized by higher power, greater efficiency, compact size and lower costs, which will collectively drive the hydrogen economy. Additionally, the company's "zero-carbon MW powerplant" based on the 400kW stack will deliver more competitive zero emission power for grid-independent AI datacenters, along with electrical grid peak-shaving powerplants.

Seeking the most cost-efficient production methods, Horizon has made comprehensive upgrades in the bipolar plate manufacturing processes. The graphite layer is produced using

high-precision molding techniques, enhancing product consistency while reducing production costs by over 50%. The metal layer utilizes newly developed PVD carbon coating technology to improve conductivity and reduce contact resistance, further enhancing the reliability and efficiency of the stack. The hybrid bipolar plates are assembled using the company's long-validated sealing technology, reliably integrating the graphite and metal layers.

About Horizon Fuel Cell Technologies: [www.horizonfuelcell.com](http://www.horizonfuelcell.com)

Horizon Fuel Cell Technologies was founded in 2003, with a consistent focus on fundamental innovation in both materials and systems-level technology for fuel cell and electrolyser solutions. The launch of the VLS-IV 400kW fuel cell underscores the company's strong R&D capabilities and contributes to the global energy transition and a "zero-carbon" future. As hydrogen technologies mature and application scenarios diversify, Horizon is actively embracing the "post-subsidy era" of fuel cells, leading the mass commercialization of hydrogen power applications and green hydrogen generation.

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