

## High Voltage Direct Current Power Supply Market Size, Share & Trends Analysis Report By Voltage (1,000-4000 V, >4,000 V), By Application (Oil & Gas, Industrial), By Region (Europe, Asia Pacific), And Segment Forecast, 2023 - 2030

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## **Abstracts**

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High Voltage Direct Current Power Supply Market Growth & Trends

The global high voltage direct current power supply market size is expected to reach USD 5.9 billion by 2030, registering a CAGR of 7.9% from 2023 to 2030, according to a new study by Grand View Research Inc. These gadgets offer significant opportunities for industry expansion and interact with renewable or alternative energy sources like photovoltaics, fuel cells, and wind power with ease. Over the next seven years, product demand is expected to be driven by the advent of hybrid HVDC power supply circuit technology that makes use of Voltage Source Converters (VSC) and is compact in comparison to traditional design.

The industry has also seen the advancement of high power Insulated Gate Bipolar Transistors (IGBT), which has reduced the size of the HVDC power supply system and generated significant financial gains. The only feasible option now on the market that can be used with renewable energy sources is the HVDC power supply, which increases the dependability of an electrical system. These products' effective bulk power transmission over long distances has greatly aided the development of direct-drive wind turbines, which promotes the long-term sustainability of the current energy infrastructure. The introduction of 4G and 5G networks causes constant growth in the industry as the need for power for telecom base station equipment rises.



Another factor driving the industry growth is 5G deployment, which will have modest growth between 2020 and 2022 as 5G investment steadily picks up worldwide, with major growth most likely to occur around 2025. Electric systems are also growing more complex as a result of a rise in feed-in nodes brought on by the increased grid expansion demand. As a result, there is a higher chance that there will be partial or complete blackouts, which happen when power flow exceeds design parameters. It is anticipated that the PGCIL, Global Wind Energy Council, and EUROPA would create advantageous public policies that will considerably aid the expansion of the offshore wind industry, thus supporting the industry

In India, transmission corridor requests from grid operators are increasing, especially in light of the advancement of renewable energies. Regeneration has been given priority by the government in this situation, and PGCIL was awarded the contract to construct an eco-friendly source for producing electricity from wind and solar power projects. Due to substantial investments made by industry players like Siemens and ABB, offshore HVDC power supply power transmission systems have been established in countries like Italy, Norway, and the Netherlands. Such initiatives undertaken for industry growth are expected to support the OEMs in expanding their overall share.

High Voltage Direct Current Power Supply Market Report Highlights

The industrial segment accounted for the largest revenue share in 2022 and will expand further at a steady CAGR from 2023 to 2030

This is mainly due to the rapid industrialization in developing nations like China & India and the high demand for reliable electricity supply

The telecommunication application segment is anticipated to witness a healthy CAGR from 2023 to 2030

The growth is attributable to the dependable and long-distance transmission with little loss provided by these items

The extensive use of the internet has accelerated infrastructure construction, which could have a significant impact on the segment's as well as overall industry growth

The >4,000 V segment accounted for the largest revenue share in 2022 due to



the various characteristics offered by these products, such as reduced output noise, development of an automated high-voltage test system, and improved sourcing precision, and measurement sensitivity



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