

## **Saudi Arabia High-Voltage Direct Current (HVDC) Transmission Systems Market Report and Forecast 2024-2032**

Market Report | 2024-06-20 | 200 pages | EMR Inc.

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### **Report description:**

Saudi Arabia High-Voltage Direct Current (HVDC) Transmission Systems Market Report and Forecast 2024-2032

Market outlook

According to the report by Expert Market Research (EMR), the Saudi Arabia high-voltage direct current (HVDC) transmission systems market size reached a value of USD 243.31 million in 2023. Aided by the increasing demand for efficient power transmission and the growing applications of HVDC systems in various sectors, the market is projected to further grow at a CAGR of 6.5% between 2024 and 2032 to reach a value of USD 429.61 million by 2032.

HVDC transmission systems are critical for the efficient transmission of electricity over long distances with minimal losses. Unlike traditional alternating current (AC) systems, HVDC systems offer significant advantages, including reduced transmission losses, enhanced stability, and the ability to connect asynchronous grids. These systems are increasingly being adopted in Saudi Arabia to support the country's growing energy demands and to integrate renewable energy sources into the national grid.

The increasing demand for efficient power transmission is driving the Saudi Arabia high-voltage direct current (HVDC) transmission systems market growth. HVDC systems are being recognized for their ability to transmit large amounts of electricity over long distances with lower energy losses compared to AC systems. Additionally, the growing focus on renewable energy sources, such as solar and wind, has further contributed to the increasing adoption of HVDC systems, as these systems facilitate the efficient integration of renewable energy into the grid.

The expanding applications of HVDC systems in various sectors also play a significant role in propelling the HVDC transmission systems market. In the industrial sector, HVDC systems are used to ensure reliable and efficient power supply to large-scale manufacturing facilities and industrial complexes. The energy sector utilises HVDC systems for long-distance transmission of electricity generated from renewable sources, as well as for interconnecting regional power grids. Moreover, the commercial sector benefits from the high efficiency and reliability of HVDC systems, making them ideal for use in large commercial establishments and infrastructure projects.

Further, the growing investments in infrastructure development and the focus on modernising the power grid have led to an increased demand for HVDC systems. The Saudi Vision 2030 initiative aims to diversify the country's economy and reduce its

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dependence on oil by investing in infrastructure and renewable energy projects. This has created a favourable environment for the growth of the high-voltage direct current (HVDC) transmission systems market in Saudi Arabia, as these systems are essential for achieving the country's energy and sustainability goals.

The continuous advancements in HVDC technology, such as the development of voltage source converter (VSC) HVDC systems, are enhancing the capabilities and applications of HVDC systems. These advancements are driving the adoption of HVDC systems in various sectors, supporting the market growth.

As per the Saudi Arabia high-voltage direct current (HVDC) transmission systems market analysis, market is poised for significant growth in the coming years, driven by the increasing demand for efficient power transmission and the growing applications of HVDC systems in various sectors. The rising investments in renewable energy projects and the focus on infrastructure development and grid modernization are expected to further boost the market growth.

Continuous innovation and technological advancements in HVDC systems are essential to meet the evolving needs of industries and maintain a competitive edge in the market. The growing awareness and adoption of advanced power transmission solutions in emerging markets also present significant opportunities for market expansion.

#### Market Segmentation □

The market can be divided based on component, project type, technology, and application

#### Market Breakup by Component

- Converter Stations
- Transmission Cables
- Others

#### Market Breakup by Project Type

- Point-to-Point
- Back-to-Back
- Multi-Terminal

#### Market Breakup by Technology

- Capacitor Commutated Converter (CCC) Based
- Voltage Source Converter (VSC) Based
- Line Commutated Converter (LCC) Based

#### Market Breakup by Application

- Bulk Power Transmission
- Interconnecting Grids
- Infeed Urban Areas

#### Competitive landscape

The EMR report looks into the market shares, plant turnarounds, capacities, investments, and mergers and acquisitions, among other major developments, of the leading companies operating in Saudi Arabia high-voltage direct current (HVDC) transmission systems market. Some of the major players explored in the report by expert market research are as follows:

- Siemens AG
- Hitachi Energy Ltd.
- ABB Ltd.
- General Electric Company
- Prysmian Group
- Hyundai Motor Company
- Hyosung Heavy Industries Corporation
- SNC-Lavalin Group Inc.
- Others

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