

# The High Voltage Direct Current (HVDC) Transmission Market 2013-2023

<https://marketpublishers.com/r/HCABC7A1136EN.html>

Date: June 2013

Pages: 154

Price: US\$ 2,635.00 (Single User License)

ID: HCABC7A1136EN

## Abstracts

High Voltage Direct Current (HVDC) transmission is the method of choice for the subsea transmission of electricity, the connection of disparate AC grids and/or the movement of bulk amounts of electrical power over vast distances. In each of these three respects HVDC transmission is superior to its competitor HVAC (high voltage alternating current).

Composed of the capital expenditure upon HVDC transmission, this market is due for steady, incremental growth over the next 5 years. Visiongain anticipates, nevertheless, that some regions of the world, such as South East Asia and Africa, have the potential to attract significant investment given opportune political and regulatory circumstances.

The majority of HVDC transmission constructed is of the point-to-point variety; with no integrated HVDC circuit breaker proven commercially viable, electricity can only be moved between two points. This limits potential. Subsequently, it is used, for the most part, to connect large power resources, such as a hydroelectric power generation facilities, to load centres. The ABB HVDC circuit breaker, announced in 2012, is a game-changer for the industry that could enable the creation of a HVDC grid.

Asia dominates the HVDC transmission market. In China, the government's ambition to connect hydropower resources in the South-West and coal reserves in the North-West to Eastern and South-Eastern cities is the prime agent of this dominance. In addition, with fewer regulatory or right-of-way obstacles facing development than in Europe or North America, the Asian share of the HVDC transmission market declines relatively little during the next 10 years. Lower barriers to project development, combined with low political instability, also make Asian investment outcomes more certain than any other region.

Overall, the outlook for HVDC transmission is positive. The core drivers for spending on this method of transmission are in place: power balancing, energy efficiency gains, greater affordability for end users and the connection of renewables. However, rigid regulation, right-of-way issues, political instability and political opposition to hydropower conspire to limit growth and amplify investment uncertainty and risk.

Visiongain has determined that the value of the High Voltage Direct Current (HVDC) Transmission market will reach \$16,556.1m in 2013.

### **What makes this report unique?**

Visiongain consulted widely with industry experts and full transcripts from these exclusive interviews are included in the report. As such, the report has a unique blend of primary and secondary sources providing informed opinion. The report provides insight into key the drivers for, and restraints on, HVDC transmission capital expenditure. It also identifies future growth areas, analyses leading companies and provides a unique blend of qualitative analysis combined with extensive quantitative data including global and regional market forecasts from 2013-2023 - all highlighting key business opportunities.

### **Why you should buy The High Voltage Direct Current (HVDC) Transmission Market 2013-2023**

154 pages of comprehensive analysis

2 Exclusive Visiongain interviews with:

Marcello Del Brenna, Chairman of the Utilities Board at Europacable

Ingard Moen, Vice President of Business Development at Statnett

86 tables, charts, and graphs

Global HVDC transmission market forecasts between 2013-2023

Six regional market forecasts between 2013-2023 for:

Asia

Europe

North America

South America

Africa

South East Asia and Oceania

Within these regional markets, HVDC transmission capital expenditure outlooks and analyses for the following countries is provided:

China

India

Sri Lanka

South Korea

US

Canada

A PEST analysis

In-depth analysis of the leading 5 companies active in the supply of HVDC components.

### **You can order this report today**

Gain an understanding of how to tap into the potential of this market by ordering **The High Voltage Direct Current (HVDC) Transmission Market 2013-2023**

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## About

### Europacable

Marcello Del Brenna is the CEO of Prysmian PowerLink Srl with specific responsibility for HV and Submarine businesses in the Prysmian Group. He is also a Member of the Europacable Executive Board and a Chairman of its Utilities Board. He holds a degree in nuclear engineering from the Politecnico di Milano and has been working at Prysmian since 1993. His positions within the company ensure that he has developed vast R&D, commercial and international expertise in the global electrical cabling industry. He is interviewed here in his role as the Chairman of the Utilities Board of Europacable ([www.europacable.com](http://www.europacable.com)). The interview took place in June of 2013 and visiongain would like to thank Mr. Del Brenna for his astute and invaluable remarks. Europacable is the association that represents and advocates on behalf of approximately 85% of the European wire and cable industry at the European level. Formed in 1991, the membership companies provide cables and wiring for an extremely broad range of applications, from energy to automotive to telecommunications and beyond. It is a champion of its member's collective interest, representing them and their products at the European level.

### HVDC Cable Manufacturers

HVDC component suppliers discussed in the above section have the capability to supply the cable systems needed for HVDC transmission. However, there are a number of companies, from which two stand out, that have developed as a core business segment the supply of HV cabling. These two companies, which are also the two largest suppliers of copper and optical fibre cable (speciality cable) worldwide, are Nexans and Prysmian. Analysis and comparison of these two companies is an important sub-segment of the HVDC transmission market. They are analysed below by their total company sales in 2012 (highest first).

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