High Voltage Direct Current (HVDC) Transmission Market by Technology, Component, Project Type, Application, and Geography - Global Forecast to 2022

Description:
“The HVDC transmission market is expected to grow at a CAGR of 8.4% during the forecast period.”
The HVDC transmission market is expected to reach USD 10.77 billion by 2022, at a CAGR of 8.4% between 2016 and 2022. In terms of power capacity, the market is estimated to reach 85.79 GW by 2022, at a CAGR of 9.8% between 2016 and 2022. HVDC transmission solutions increase energy efficiency and reduce transmission losses; they require less use of land and are flexible in changing the flow direction of power. In addition, HVDC transmission helps in the network integration for connecting renewable energy sources beyond the national boundaries. These factors are expected to drive the growth of the market during the forecast period.

“VSC-based technology is at the growth stage; while UHVDC is at the introductory stage.”
The market for VSC-based technology is estimated to grow at a significant pace during the forecast period. The UHVDC technology is still at its introductory stage; currently, there is not much interest for the new UHVDC transmissions systems across the world, except China. Thorough investigations are being carried out to fulfill the future demand for electricity, which is not reachable or nearby to the load centers. However, countries such as China, India, Brazil, the U.S., and South America might utilize far away located hydro and solar generation plants of UHVDC transmissions systems.

“The market in APAC is expected to grow at the highest rate during the forecast period.”
The market in APAC is expected to grow at the highest CAGR between 2016 and 2022. The growth can be attributed to the high investments made by both the regional and global companies, such as ABB, Siemens, GE, and Hitachi among others, in this region.

Breakdown of profile of primary participants:
- By Company Type: Tier 1 - 14%, Tier 2 - 29%, and Tier 3 - 57%
- By Designation: C-Level - 28%, Director Level - 29%, and Others - 43%
- By Region: North America - 29%, Europe - 57%, and APAC - 14%

The key players operating in this market include ABB Ltd. (Switzerland), Siemens AG (Germany), General Electric (U.S.), Hitachi (Japan), Toshiba (Japan), Nexans (France), Prysmian (Italy), NR Electric (China), American Superconductor (U.S), and Transgrid (U.S.) among others.

“Reasons to buy the report“:
- This report includes the market statistics pertaining to the HVDC transmission market, by technology, component, project type, application, and geography, along with their respective market size (in terms of value) and power generation capacity.
- The Porter's five forces analysis, value chain analysis, and key strategies adopted by the market players have been provided for the HVDC transmission market.
- Major drivers, restraints, opportunities and, challenges for the HVDC transmission market have been detailed in this report.
- The report includes illustrative segmentation, analysis, and forecast for the HVDC transmission market based on its segments and subsegments.

Contents:
1 Introduction
1.1 Study Objectives
1.2 Market Definition
1.3 Study Scope
1.3.1 Markets Covered
1.3.2 Years Considered For The Study
1.4 Currency & Pricing
1.5 Limitations
1.6 Stakeholders
2 Research Methodology
2.1 Research Data
2.1.1 Secondary Data
2.1.1.1 Key Data From Secondary Sources
2.1.2 Primary Data
2.1.2.1 Key Data From Primary Sources
2.1.2.2 Key Industry Insights
2.1.2.3 Breakdown Of Primary Interviews
2.2 Market Size Estimation
2.2.1 Bottom-Up Approach
2.2.2 Top-Down Approach
2.3 Market Breakdown And Data Triangulation
2.4 Research Assumptions
3 Executive Summary
4 Premium Insight
4.1 Market Capacity Of HVDC Transmission, 2016 - 2022
4.2 HVDC Transmission Market, By Technology
4.3 APAC Held The Largest Market Share Of The HVDC Transmission Market In 2015
4.4 China Dominated The HVDC Transmission Market In APAC In 2015
4.5 Offshore Power Transmission Application In HVDC Market
4.6 Life Cycle Analysis, By Geography
5 Market Overview
5.1 Market Segmentation
5.1.1 HVDC Transmission Market, By Technology
5.1.2 HVDC Transmission Market, By Component
High Voltage Direct Current (HVDC) Transmission - Global Forecast To
5.1.3 HVDC Transmission Market, By Project Type
5.1.4 HVDC Transmission Market, By Application
5.1.5 HVDC Transmission Market, By Geography
5.2 Market Dynamics
5.2.1 Drivers
5.2.1.1 Better Performance Of HVDC Systems Compared To HVAC Systems
5.2.1.2 Renewable Energy Integrated Into HVDC Systems
5.2.1.3 Growing Demand For VSC Technology
5.2.2 Restraints
5.2.2.1 High Cost Of Circuit Breakers
5.2.2.2 High Installation Cost
5.2.3 Opportunities
5.2.3.1 Increase In The Number Of Offshore Wind Transmission Projects
5.2.3.2 Emerging UHVDC Technology
5.2.4 Challenges
5.2.4.1 Standardization Of HVDC Transmission Systems
6 Industry Trends
6.1 Introduction
6.2 Value Chain Analysis
6.3 Porter's Five Forces Analysis
6.3.1 Intensity Of Competitive Rivalry
6.3.2 Threat Of Substitutes
6.3.3 Bargaining Power Of Buyers
6.3.4 Bargaining Power Of Suppliers
6.3.5 Threat Of New Entrants
6.4 Regulatory Landscape
7 HVDC Transmission Market, By Component
7.1 Introduction
7.2 Convertor Stations
7.2.1 Valves
7.2.1.1 Thyristor Valves
7.2.1.2 VSC Valves
7.2.2 Transformers
7.2.3 Harmonic Filters
7.2.3.1 AC Filters
7.2.3.2 DC Filters
7.2.4 Circuit Breakers: Breakthrough Innovation
7.2.5 Reactors
7.2.6 Surge Arresters

High Voltage Direct Current (HVDC) Transmission - Global Forecast To

7.3 Transmission Cables
7.3.1 HVDC Submarine Cables
7.4 Others

8 HVDC Transmission Market, By Technology
8.1 Introduction
8.2 Capacitor Commutated Converter (Ccc) Based
8.3 Voltage Source Converter (Vsc) Based
8.3.1 HVDC Light: Abb
8.3.2 HVDC Plus: Siemens
8.4 Line Commutated Converter (Lcc) Based (Thyristor Based)
8.4.1 HVDC Classic: Abb
8.4.2 HVDC Classic: Siemens
8.5 Uhvdc-Upcoming Technology
9 HVDC Transmission Market, By Project Type
9.1 Introduction
9.2 Point-To-Point Transmission
9.2.1 Bipolar
9.2.2 Monopolar
9.3 Back-To-Back Stations
9.4 Multi-Terminal Systems
9.4.1 Series Multi Terminal Systems
9.4.2 Parallel Multi-Terminal Systems
10 HVDC Transmission Market, By Application
10.1 Introduction
10.2 Underground Power Transmission
10.2.1 Islands
10.2.2 Urban Areas
10.2.3 Industrial Locations
10.3 Asynchronous Grid Interconnection
10.4 Off-Shore Power Transmission
10.4.1 Wind Projects
10.4.2 Oil & Gas
11 Geographic Analysis
11.1 Introduction
11.2 Americas
11.2.1 North America
11.2.1.1 NAFTA Has Promised The Development Of A Green Economy Throughout North America
High Voltage Direct Current (HVDC) Transmission - Global Forecast To
11.2.1.2 U.S
11.2.1.2.1 HVDC Transmission Market In The U.S. Undergoing Changes And Developments
11.2.1.3 Canada
11.2.1.3.1 Potential Applications Of HVDC In The Canadian National Electrical Grid
11.2.1.4 Mexico
11.2.1.4.1 Electricity Bond Between The U.S. And Mexico Strengthens
11.2.2 South America
11.2.2.1 Increased Growth And Adoption Of Renewable Power Observed In South America.
11.2.2.2 Brazil
11.2.2.2.1 A Highly Potential Country For HVDC Deployment
11.2.2.3 Rest Of South America
11.3 Europe
11.3.1 HVDC Expected To Be The Transmission Backbone Of Europe’s Future Power Systems
11.3.2 U.K.
11.3.2.1 Increasing Integration Of Offshore Wind Energy Into The U.K.’S
Electricity Transmission Networks
11.3.3 Germany
11.3.3.1 Increasingly Adopting HVDC Technology
11.3.4 Russia
11.3.4.1 Potential Market For HVDC Systems
11.3.5 France
11.3.5.1 Potential For Further Interconnection To Contribute To Security Of Supply
11.3.6 Rest Of Europe
11.4 Apac
11.4.1 Presently Following An Exponential Growth Curve
11.4.2 China
11.4.2.1 Leading Country In The Global HVDC Transmission Market
11.4.3 Japan
11.4.3.1 Significant Growth And Use Of Renewable Sources Of Energy
11.4.4 India
11.4.4.1 Government Initiatives To Enhance The Energy Security
11.4.5 Australia
11.4.5.1 Initiatives Being Taken Up By Arena To Drive The Pv Cells Market
11.4.6 Rest Of APAC
11.5 Row
11.5.1 Huge Potential For Renewable Resources In The Middle East And Africa
11.5.2 Middle East
11.5.3 Africa
High Voltage Direct Current (HVDC) Transmission - Global Forecast To
12 Competitive Landscape
12.1 Overview
12.2 Market Ranking For HVDC Transmission Market
12.3 Competitive Scenario
12.4 Recent Developments
12.4.1 Partnerships/Joint Ventures/Agreements
12.4.2 Expansions
12.4.3 Mergers & Acquisitions
12.4.4 New Product Launches
13 Company Profiles
13.1 Introduction
13.2 Abb Ltd.
13.2.1 Business Overview
13.2.2 Products & Solutions
13.2.3 Recent Developments
13.2.4 View
13.2.4.1 Swot Analysis
13.3 Siemens AG
13.3.1 Business Overview
13.3.2 Products & Solutions
13.3.3 Recent Developments
13.3.4 View
13.3.4.1 Swot Analysis
13.4 General Electric
13.4.1 Business Overview
13.4.2 Products & Solutions
13.4.3 Recent Developments
13.4.4 View
13.4.4.1 Swot Analysis
13.5 Toshiba Corporation
13.5.1 Business Overview
13.5.2 Products & Solutions
13.5.3 Recent Developments
13.5.4 View
13.5.4.1 Swot Analysis
13.6 Hitachi, Ltd.
13.6.1 Business Overview
13.6.2 Products & Solutions
13.6.3 Recent Developments
13.6.4 View
13.6.4.1 Swot Analysis
High Voltage Direct Current (Hvdc) Transmission - Global Forecast To
13.7 Prysmian Group
13.7.1 Business Overview
13.7.2 Products Offered
13.7.3 Recent Developments
13.8 Nexans Sa
13.8.1 Business Overview
13.8.2 Products Offered
13.8.3 Recent Developments
13.9 American Superconductor Corp.
13.9.1 Business Overview
13.9.2 Products Offered
13.9.3 Recent Developments
13.10 Nr Electric Co., Ltd.
13.10.1 Business Overview
13.10.2 Products Offered
13.10.3 Recent Developments
13.11 Transgrid Solutions, Inc.
13.11.1 Business Overview
13.11.2 Services Offered
13.11.3 Recent Developments
14 Appendix
14.1 Insights Of Industry Experts

List of Tables

Table 1 Growing Demand For Vsc-Based HVDC Technology Expected To Propel
The Growth Of The HVDC Transmission Market During The Forecast Period
Table 2 High Installation Cost Acts As A Restraint In The HVDC Transmission Market
Table 3 Increase In Number Of Offshore Wind Transmission Projects Poses As A Huge Opportunity For The
HVDC Transmission Market
Table 4 Function And Stakeholders In A HVDC Transmission Value Chain
Table 5 Porter's Five Forces Analysis: Threat Of Substitutes Likely To Have Minimum Impact On The Overall
Market During The Forecast Period
Table 6 HVDC Transmission Market: Regulatory Landscape
Table 7 HVDC Transmission Market, In Terms Of Value And Volume, 2013 - 2022
Table 8 HVDC Transmission Market, By Component, 2013 - 2022 (USD Billion)
Table 9 HVDC Transmission Market For Converter Stations 2013 - 2022 (USD Billion)
Table 10 HVDC Transmission Market For Valves, 2013 - 2022 (USD Billion)
Table 11 HVDC Transmission Market, By Technology, 2013 - 2022 (USD Billion)
Table 12 HVDC Transmission Market, By Technology, 2013 - 2022 (In Gw)
Table 13 Vsc-Based Technology Market, By Project Type, 2013 - 2022 (USD Billion)
Table 14 Vsc-Based Technology Market, By Point-To-Point Project Type 2013 - 2022 (USD Billion)
Table 15 Lcc-Based Technology Market, By Project Type, 2013 - 2022 (USD Billion)
Table 16 Lcc-Based Technology Market, By Point-To-Point Project Type 2013 - 2022 (USD Billion)
Table 17 Difference Between Lcc And Vsc
Table 18 UHVDC Market, By Project Type, 2013 - 2022 (USD Billion)
Table 19 UHVDC Market, By Point-To-Point Project Type, 2013 - 2022 (USD Billion)
Table 20 HVDC Transmission Market For Point-To-Point Project Type By Technology, 2013 - 2022 (USD Billion)
Table 21 HVDC Transmission Market For Point-To-Point Project Type By Application, 2013 - 2022 (USD Billion)
Table 22 HVDC Transmission Market For Point-To-Point Project Type By Region, 2013 - 2022 (USD Billion)
Table 23 HVDC Transmission Market For Point-To-Point Project Type By Offshore Power Transmission, 2013 - 2022 (USD Billion)
Table 24 HVDC Transmission Market For Point-To-Point Project Type, By Region 2013 - 2022 (USD Billion)
Table 25 HVDC Transmission Market, By Point-To-Point Project Type 2013 - 2022 (USD Billion)
Table 26 HVDC Transmission Market For Bipolar Point-To-Point Project Type By Technology, 2013 - 2022 (USD Billion)
Table 27 HVDC Transmission Market For Bipolar Point-To-Point Project Type By Application, 2013 - 2022
Table 28 HVDC Transmission Market For Bipolar Point-To-Point Project Type By Offshore Power Transmission, 2013 - 2022 (USD Billion)

Table 29 HVDC Transmission Market For Bipolar Point-To-Point Project Type By Region, 2013 - 2022 (USD Billion)

Table 30 HVDC Transmission Market For Monopolar Point-To-Point Project Type By Technology, 2013 - 2022 (USD Billion)

Table 31 HVDC Transmission Market For Monopolar Point-To-Point Project Type By Application, 2013 - 2022 (USD Billion)

Table 32 HVDC Transmission Market For Monopolar Point-To-Point Project Type By Offshore Power Transmission, 2013 - 2022 (USD Billion)

Table 33 HVDC Transmission Market For Monopolar Point-To-Point Project Type By Region, 2013 - 2022 (USD Billion)

Table 34 HVDC Transmission Market For Back-To-Back Project Type By Technology, 2013 - 2022 (USD Billion)

Table 35 HVDC Transmission Market For Back-To-Back Project Type By Application, 2013 - 2022 (USD Billion)

Table 36 HVDC Transmission Market For Back-To-Back Project Type By Offshore Power Transmission, 2013 - 2022 (USD Billion)

Table 37 HVDC Transmission Market For Back-To-Back Project Type, By Region 2013 - 2022 (USD Billion)

Table 38 HVDC Transmission Market For Multi-Terminal Project Type By Technology, 2013 - 2022 (USD Billion)

Table 39 HVDC Transmission Market For Multi-Terminal Project Type By Application, 2013 - 2022 (USD Billion)

Table 40 HVDC Transmission Market For Multi-Terminal Project Type By Offshore Power Transmission, 2013 - 2022 (USD Billion)

Table 41 HVDC Transmission Market For Multi-Terminal Project Type, By Region 2013 - 2022 (USD Billion)

Ordering:
- Order Online - [http://www.researchandmarkets.com/reports/3734916/](http://www.researchandmarkets.com/reports/3734916/)
- Order by Fax - using the form below
- Order by Post - print the order form below and send to
  
  Research and Markets,
  Guinness Centre,
  Taylors Lane,
  Dublin 8,
  Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

Product Name: High Voltage Direct Current (HVDC) Transmission Market by Technology, Component, Project Type, Application, and Geography - Global Forecast to 2022
Web Address: http://www.researchandmarkets.com/reports/3734916/
Office Code: SCPLD3FZ

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF)</td>
<td></td>
</tr>
<tr>
<td>Single User</td>
<td>USD 5650</td>
</tr>
<tr>
<td>1 - 5 Users</td>
<td>USD 6650</td>
</tr>
<tr>
<td>Site License</td>
<td>USD 8150</td>
</tr>
<tr>
<td>EnterpriseWide</td>
<td>USD 10000</td>
</tr>
</tbody>
</table>

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title: Mr [ ] Mrs [ ] Dr [ ] Miss [ ] Ms [ ] Prof [ ]
First Name: ___________________________ Last Name: ___________________________
Email Address: * _______________________
Job Title: _____________________________
Organisation: _________________________
Address: _______________________________
City: _________________________________
Postal / Zip Code: _____________________
Country: ______________________________
Phone Number: _________________________
Fax Number: ___________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:

Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:

Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: ____________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:

(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World