

China High Voltage Switchgear Industry Report, 2009-2010



High voltage switchgears are a type of primary equipment in power transmission and distribution, functioning as a protective mastery of power transmission and distribution and taking around 6% of total grid investment in China. The rated voltage of high voltage switchgears is usually divided into high voltage (126-252kV), super high voltage (363-800kV), and ultra high voltage (1100kV). High-voltage switchgear mainly includes CB, GIS, H-GIS, DS, ES and load switches.

With the growing investment in power grid and the rapid progression of UHV projects in China in recent years, the high-voltage switchgear industry has been developing speedily at the compound growth rate of 24% since 2003. Both output value and sales revenue of the industry as of 2008 exceeded RMB100 billion; and the figures in 2009 rose by 25% and 21% respectively over 2008.

The report not only highlights the outstanding switchgears including CB, GIS, H-GIS, DS and ES when the high-voltage demand surges, but also analyzes the supply and demand in the market as well as the enterprises by voltage class.

1 CB

In recent years, high-voltage circuit breakers, especially SF6 high-voltage circuit breaker with high technical content and high added value, have been developing rapidly with a CAGR of 13.9% during recent 8 years. At the same time, medium-voltage vacuum circuit breakers begin to turn to high-voltage ones. With the coming 'UHV' era of power grid, Chinese market of high-voltage vacuum circuit breakers has a bright prospect in the future.

As a whole, Chinese circuit breaker market is dominated by foreign-funded enterprises, while China XD and Pinggao Electric are the most influential companies among domestic enterprises. By voltage class, foreign-funded enterprises focused on 220KV-and-below circuit breakers in 2009; while domestic peers had strength in high-voltage and super high-voltage circuit breakers. In 2009, Pinggao Electric was the biggest winner of the bid invited by State Grid for 750KV circuit breakers, with the shares of 38%; China XD won the bid for 59 sets of 500KV circuit breakers, with a market share of 24%.

2 GIS

As it covers little area and runs with high reliability and hardly affected by the environment, GIS has been welcomed in the market in recent years, particularly 252KV and 550KV-and-above GIS.

In recent years, the demand of a diversity of customers for 126kV GIS keeps growing in China, and the market is expanded fast. Yet, the numerous manufacturers bring fierce market competition. Comparatively, 252 KV GIS outperformed the GIS sector, with a CAGR of 50.9% during recent eight years. The increased demand for high-voltage switchgears makes 550KV (nominal grid voltage 500KV) become the mainstream in the market.

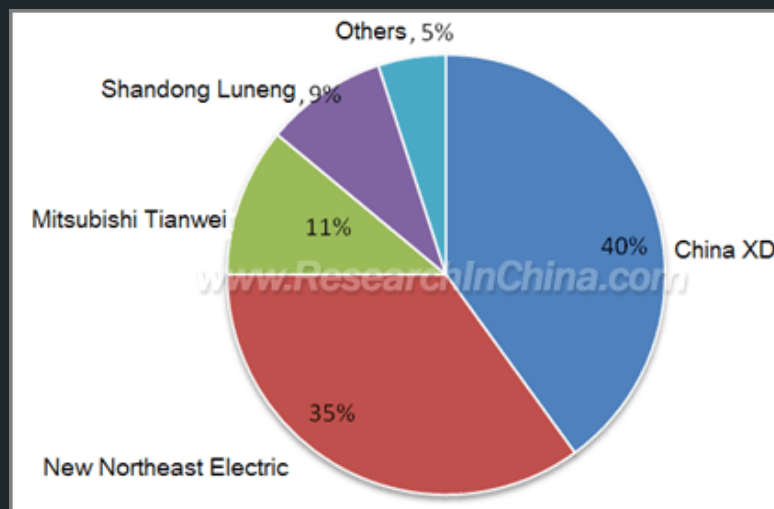
In 2009, the bidding volume for 500KV GIS invited by State Grid recorded 89 partitions, 1.28 times larger than that of last year. Additionally, 800KV GIS has been put into operation massively in power grids across China, and 1100KV GIS has also been successfully developed, particularly represented by the producer China XD.

3 H-GIS

In H-GIS, 550KV (rated grid voltage 500KV) H-GIS is applied most widely and it sees a rising proportion in the total bids invited by State Grid from 2007 to 2009, from 65% in 2007, 100% in 2008 to 86% in 2009.

As for the winners of bids, China XD brought its advantages into full play in the 550KV H-GIS market in 2009, accounting for 40% by the bid-winning partitions and up 26 percentage points from 14% in 2008. New Northeast Electric ranked second, and its market share grew at the fastest rate, from 4% in 2008 to 35% in 2009.

Competition Pattern of 550KV H-GIS Enterprises, 2009 (by Number of Partitions in Bids Invited by State Grid)



Source: ResearchInChina; State Grid

4 DS & ES

In China DS and ES industry, there is a large number of enterprises adept in 126KV-below DS and ES, so the competition in the market is fierce and the supply is sufficient; only a few enterprises focus on 126KV-above DS and ES, with monopolistic advantages. Currently, 252-550kV DS market is under control of several enterprises with great strength in R&D. What's more, 800kV, 1100kV super and ultra high-voltage DS has stricter technical requirements, But most companies lack capacity. As a result, the supply falls short of the demand, and the enterprises, as usual, mostly do the R&D and production simultaneously to timely satisfy market demand.

Among the bids invited by State Grid and China Southern Power Grid in 2009, 22.53% of DS and ES (1,938 sets) Was won by Changgao High Voltage Switchgear, which took the first place; Rugao High Voltage Electric and Pinggao Electric held the shares of 18.61% and 12.9% respectively.

In addition, the report also focuses on over 20 key enterprises, including ABB, Siemens, AREVA T&D China, China XD, Pinggao Electric, Changgao High Voltage Switchgear, Rugao High Voltage Electric, Taikai, New Northeast Electric and Daqo Group. Apart from the overall operation of those companies, it analyzes their production and marketing of key products, competitiveness, proposed projects and the ones under construction as well as future strategies.

Table of Contents

- **1. Brief Introduction to High Voltage Switchgear in China**
 - 1.1 Definition
 - 1.2 Classification
 - 1.3 Features
- **2. Status Quo of China High Voltage Switch Industry**
 - 2.1 Industry Development Environment
 - 2.2 Industry Overview
 - 2.2.1 Production
 - 2.2.2 Profitability
 - 2.2.3 Import & Export
- **3. China High Voltage Switchgear Market**
 - 3.1 Regional Market
 - 3.2 Product Market
 - 3.3 Enterprise Pattern
- **4. Segment Products of High Voltage Switchgears in China**
 - 4.1 Circuit Breaker (CB)
 - 4.1.1 Supply & Demand
 - 4.1.2 Competition Pattern of Enterprises
 - 4.2 Gas Insulated Switchgear (GIS)
 - 4.2.1 Supply & Demand
 - 4.2.2 Competition Pattern of Enterprises
 - 4.3 H-GIS
 - 4.3.1 Supply & Demand
 - 4.3.2 Competition Pattern of Enterprises
 - 4.4 Disconnect Switch (DS) & Earthing Switch (ES)
 - 4.4.1 Supply & Demand
 - 4.4.2 Competition Pattern of Enterprises
- **5. Key Enterprises**
 - 5.1 ABB (China) Limited
 - 5.1.1 Profile
 - 5.1.2 Business in China
 - 5.1.3 Operation
 - 5.2 Siemens China

- 5.2.1 Profile
- 5.2.2 Business in China
- 5.2.3 Operation
- 5.3 AREVA T&D
- 5.3.1 Profile
- 5.3.2 Operation
- 5.4 China XD
- 5.4.1 Profile
- 5.4.2 Operation
- 5.4.3 Competitive Edge
- 5.5 Henan Pinggao Electric Co., Ltd
- 5.5.1 Profile
- 5.5.2 Operation
- 5.5.3 Project Construction
- 5.6 Hunan Changgao High Voltage Switchgear Group Co., Ltd
- 5.6.1 Profile
- 5.6.2 Operation
- 5.6.3 Competitive Edge
- 5.6.4 Capacity Expansion Planning
- 5.7 Jiangsu Rugao High Voltage Electric Apparatus Co., Ltd
- 5.7.1 Profile
- 5.7.2 Operation
- 5.8 Taikai Electric Group Co., Ltd
- 5.8.1 Profile
- 5.8.2 Operation
- 5.9 CHINT Power Transmission & Distribution
- 5.9.1 Profile
- 5.9.2 Operation
- 5.10 New Northeast Electric
- 5.10.1 Profile
- 5.10.2 Operation
- 5.11 Daqo Group
- 5.11.1 Profile
- 5.11.2 Operation
- 5.12 Beijing Beikai Electric Co., Ltd
- 5.12.1 Profile
- 5.12.2 Operation
- 5.13 Luneng AE Power System Co., Ltd
- 5.13.1 Profile
- 5.13.2 Operation

- 5.14 Shanghai Zonfa E Power EHV Equipment Co., Ltd
- 5.14.1 Profile
- 5.14.2 Operation
- 5.15 Chongqing Bosen Electric Group Co., Ltd
- 5.15.1 Profile
- 5.15.2 Operation
- 5.16 Changshu General Electric Group Co., Ltd
- 5.16.1 Profile
- 5.16.2 Operation
- 5.17 Henan Senyuan Electric Co., Ltd
- 5.17.1 Profile
- 5.17.2 Operation
- 5.17.3 Investment
- 5.18 Jiangsu Dongyuan Electrical Group Co., Ltd
- 5.18.1 Profile
- 5.18.2 Operation
- 5.19 Huayi Electric Apparatus Group
- 5.19.1 Profile
- 5.19.2 Operation
- 5.20 Ningbo Tian'an Group Co., Ltd
- 5.20.1 Profile
- 5.20.2 Operation

Selected Charts

- Proportion of High Voltage Switchgears in China's Grid Investment
- Classification of High Voltage Switchgears
- UHV Projects under Construction or Planned in China, 2010
- China UHV Market Capacity, 2010E
- High Voltage Switch Industry and Product Output Value, 2003-2009
- China High Voltage Switch Enterprises by Output Value, 2008
- China 126KV and Above High Voltage Switch Output by Product, 2008
- Main Business Revenue and YoY Growth of China High Voltage Switch Industry, 2003-2009
- Total Profit and YoY Growth of the High Voltage Switch Industry, 2003-2009
- Export Volume and Value of Automatic Circuit Breaker (line voltage $\geq 72.5\text{kV}$), 2007-2010
- Export Volume and Value of Disconnect Switch and Make-and-break Switch (line voltage $> 1000\text{V}$), 2007-2010
- Import Volume and Value of Disconnect Switch and Make-and-break Switch (line voltage $> 1000\text{V}$), 2007-2010
- Regional Pattern and Key Enterprises of High Voltage Switch in China, 2008
- Output of 12KV (or above) SF6 Circuit Breakers and Vacuum Circuit Breakers, 2008
- Output of 126kv SF6 Circuit Breakers, 2004-2008
- Circuit Breaker Bidding Volume of State Grid, 2006-2009
- Bidding Percentage of Circuit Breakers of State Grid (by Voltage Class), 2006-2009
- Competition Pattern of Circuit Breaker Enterprises in China, 2009
- Circuit Breaker Bidding Volume of Major Enterprises (by Voltage Class), 2009
- Output and YoY Growth of 126KV GIS in China, 2002-2008
- Output and YoY Growth of 252KV GIS in China, 2002-2008

- Output and YoY Growth of 550KV GIS in China, 2003-2008
- GIS Bidding Volume of State Grid, 2006-2009
- GIS Bidding Volume of State Grid, 2006-2009 (by voltage class)
- Competition Pattern of GIS Enterprises in China, 2009
- Competition Pattern of 550KV GIS Enterprises in China, 2009
- Competition Pattern of 252 KV GIS Enterprises in China, 2009
- H-GIS Bidding Volume of SGCC (by Voltage Class), 2007-2009
- Market Shares of China's 500KV H-GIS Companies, 2007-2009
- 126KV DS & ES Output, 2001-2008
- 252 KV DS & ES Output, 2001-2008
- DS Bidding Ratio by Voltage Class, 2006-2009
- Market Shares of China's Major DS and ES Companies, 2009
- China's 750KV DS Market Share, 2009
- China's 500KV DS Market Share, 2009
- China's 330KV DS Market Share, 2009
- China's 220KV DS Market Share, 2009
- Major Switch Product Business of ABB (China) Subordinated Enterprises
- Operating Income of ABB (by Sector), 2006-2009
- Operating Income of ABB (China) Switch Business (by Enterprise), 2008
- Prime Operating Revenue and Total Profit of ABB High Voltage Switchgear Co., Ltd. (Beijing), 2004-2008
- Prime Operating Revenue and Total Profit of ABB High Voltage Switchgear (Xiamen) Co., Ltd., 2004-2008
- Major Switch Product Business of Siemens China Subordinated Enterprises
- Siemens Revenue by Region, 2008-2009
- Prime Operating Revenue and Total Profit of SHVS, 2004-2008
- Prime Operating Revenue and Total Profit of SHVC, 2004-2008

- Major Switchgears of AREVA T&D in China
- Revenue of AREVA T&D, 2004-2009
- Prime Operating Revenue and Total Profit of AREVA T&D Suzhou High Voltage Switchgear Co., Ltd., 2004-2008
- Prime Operating Revenue and Total Profit of AREVA T&D (Xiamen) Switchgear Co., Ltd., 2006-2008
- Major High Voltage Switchgears of China XD
- Operating Income and Net Income of China XD, 2006-2010
- Operating Income of China XD (by Product), 2008-2009
- Operating Income of Major Subsidiaries of China XD, 2009
- Major Switchgears of Pinggao Electric (Subsidiaries)
- Operating Income and Net Income of Pinggao Electric, 2006-2010
- Operating Income of Pinggao Electric (by Product), 2006-2009
- Major High-voltage Switch Products of Changgao Group
- Operating Income and Net Income of Changgao Group, 2007-2010
- Operating Income of Changgao Group (by Product), 2009
- Main Business Gross Profit of Changgao Group (by Product), 2009
- Capacity, Output, Capacity Utilization Rate, and Output/Sales Ratio of Switch Products of Changgao Group, 2009
- Major Switch Products of Jiangsu Rugao High Voltage Electric Apparatus Co., Ltd
- Operating Income and Net Profit of Jiangsu Rugao High Voltage Electric Apparatus Co., Ltd, 2006-2009
- Major High-Voltage Switch Products of Shandong Taikai
- Prime Operating Revenue and Total Profit of Shandong Taikai, 2004-2009
- Major High Voltage Switch Products of CHINT Power Transmission & Distribution
- Sales Revenue of CHINT Power Transmission & Distribution, 2007-2015E
- Major Switch Products of New Northeast Electric

- Prime Operating Revenue and Net Income of New Northeast Electric, 2006-2009
- Bidding Performance of New Northeast Electric's Major Products, 2009
- Major High-Voltage Switch Products of Daqo Group
- Prime Operating Revenue and Total Profit of Daqo Group, 2004-2009
- Major High Voltage Switch Products of Beijing Beikai Electric Co., Ltd
- Prime Operating Revenue and Total Profit of Beijing Beikai Electric Co., 2004-2008
- Prime Operating Revenue and Total Profit of Luneng AE Power System Co., 2004-2008
- Major High Voltage Switch Products of Shanghai Zonfa E Power EHV Equipment Co., Ltd
- Prime Operating Revenue and Total Profit of Shanghai Zonfa E Power EHV Equipment Co., 2007-2008
- Major Switch Products of Chongqing Bosen Electric Group Co., Ltd
- Prime Operating Revenue of Chongqing Bosen Electric Group Co., Ltd, 2004-2009
- Prime Operating Revenue of Changshu General Electric Factory Co., 2006-2009
- Key Switch Products of Senyuan Electric
- Operating Income & Net Income of Senyuan Electric, 2006-2010
- Senyuan Electric Operating Income Ratio by Product, 2006-2009
- Main Switch Products of Dongyuan Electrical
- Operating Income & Net Income of Dongyuan Electrical, 2006-2010
- Main Switch Products of Huayi Electric
- Operating Income & Net Income of Huayi Electric, 2006-2010
- Huayi Electric's Operating Income by Product, 2007-2009
- Main Switch Products of Ningbo Tian'an Group
- Prime Operating Revenue & Total Profit of Ningbo Tian'an Group, 2004-2008

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