Domestic Power Sector Scenario

As India is emerging as an important global supplier of goods and services, uninterrupted and quality power supply gains immense significance. Likewise, the availability of good quality and reliable electric equipment is imperative.

At present, India has an installed generating capacity of over 150,000 MW, however the peak demand gap is at about 15%. Capacity addition of about 85,000 MW is required to meet the objective of 'Electricity For All' by 2012. This also necessitates enhancement of the transmission and distribution (T&D) infrastructure to evacuate additional power across the country.

Infrastructure is another important thrust area, targeted in the Eleventh Five Year Plan. Massive investments from the private and public sector are expected to drive the growth in infrastructure segment. This includes modernization of crucial economic and social infrastructure, such as new hospitals, commercial complexes, railways, roadways and schools. All this requires huge investments.

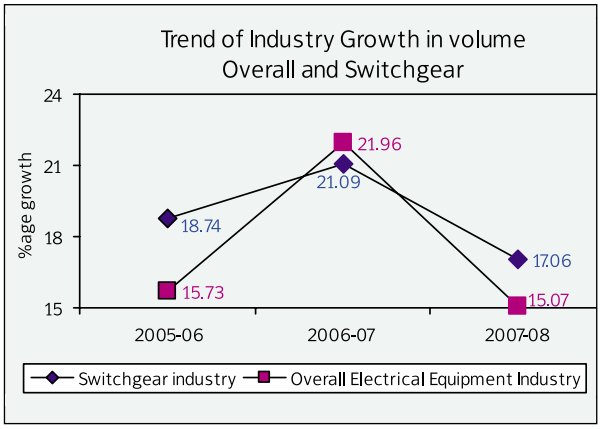
The government has pulled out all the stops to attract investment in the electrical sector and has taken various steps to make the sector attractive for investors. The Electricity Bill 2003 has provided impetus to the power sector. It has also catalyzed the much needed reform in the Electricity Boards(EBs) with many of them turning profitable after unbundling into independent entities like gencos, transcos, discoms and managed as Strategic Business Units.

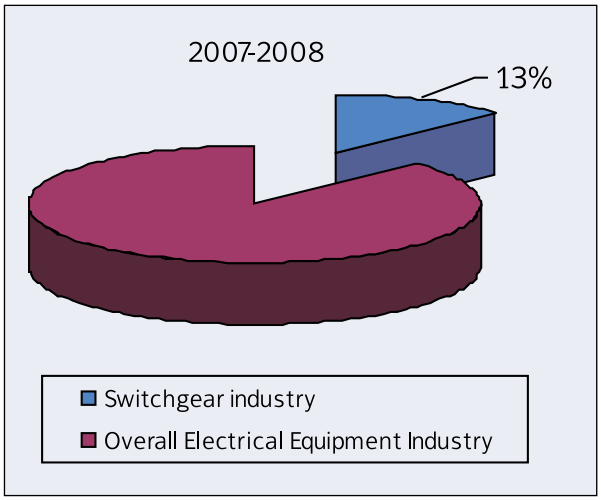
Central Electricity Regulatory Commission (CERC) and State Electricity Regulatory Commissions (SERC)too are playing an important role in regulating the sector. Public Private Partnerships (PPP) are on the increase in the generation segment. EBs are opting for more and more turnkey solutions.

The Government had also initiated the Accelerated Power Development and Reform Programme (APDRP 1-2) in order to minimize aggregate technical and commercial (AT&C) losses at the distribution level, with the objective of improving the financial health of state electricity boards (SEBs).

Switchgear & Controlgear - Industry status 2008-09

The size of the Indian switchgear industry, not including domestic switches, in 2007-08 was about 6500 Crores. The Indian switchgear industry has shown an overall growth in volume (estimated) by 2.5% in the fiscal 2008-09 in comparison to 2007-08.





Slowdown in demand is primarily noticed in the last two quarters, which could be due to higher interest rates, lower availability of capital and lack of orders across almost all ranges of switchgear. APDRP-2 programme, Rural Electrification programmes like RGGVY etc, although gathering steam, are not generating adequate demand which could be due to insufficient planning and delay in finalizing tenders.

Equipment prices are under pressure due to the sharp decline in raw material prices. Another factor contributing to pressure on prices is fierce competition between the suppliers, creating growth opportunities for suppliers having wide product range and who are capable of reducing their costs and prices faster or provide better and more value added solution.

The Primary demand drivers for power equipment include:

- The GOI driven augmentation in Generation, Transmission and Distribution under the Eleventh and Twelfth Plan periods
- R-APDRP and RGGVY programmes
- Up gradation and Enhancement of Power plants and T & D networks.
- Expansion of Infrastructure sector, both Public and Private
- Realty sector
- Alternative/Renewable power sector etc.
- Exports

The switchgear and controlgear industry can be broadly categorized under as LV, MV and HV. Recent additions like EHV and UHV have also gained importance due to increasing 765KV and 800KV HVDC lines. 1200KV transmission systems are also likely to be in place in near future.

Export	Value in Rs Crore			
	2005-06	**2006-07**	**2007-08**	**2008-09 (up to Feb)**
HT Switchgears	295.9	405.6	394.5	378.9
LT Switchgears	791.5	1024.4	1416.5	1312.5
Custom built products	169.3	403.9	671.0	903.4
Total	**6325.9**	**10996.2**	**13882.1**	**16096.7**
Import	**Value in Rs Crore**			
	2005-06	**2006-07**	**2007-08**	**2008-09 (up to Feb)**
HT Switchgears	211.3	229.7	197.0	431.9
LT Switchgears	1310.9	1856.4	1857.1	2540.0
Custom built products	401.5	578.2	792.7	1009.2
Total	**10539.6**	**13245.1**	**15002.4**	**18048.3**

Source: Select ports data

Per capita consumption of energy being relatively low, the growth potential for this industry in medium and long term is high.

Low Voltage

The LV switchgear industry has posted a growth of -Ve 7%, as compared to the previous fiscal. This is due to slow down in major users like realty and industrial sectors. In the residential construction sector, the market slowed down in 2008 with year-on-year unit growth decreasing to 10.8 percent as compared to 24.0 percent in 2007.

The slowdown was primarily because of increased interest rates which made home loans more costly. Nevertheless, the market is expected to continue growing above 10.0 percent during the forecast period, especially with the recent reforms to curb inflation. Continued growth of the residential sector is likely to drive the MCBs, ELCBs and MCCBs market.

Intense competition has however pushed prices down in the last two quarters. High level of competition in the LV switchgear market is expected, as major market participants focus on maintaining their current market shares. This will be made difficult with the emergence of low-cost domestic players who market products of similar quality.

An increase in process automation levels is expected to support push-buttons, contactors and switching relays, as well as the protection relays market, which finds application extensively for motor control.

Medium Voltage

Medium voltage switchgear industry seems to have stagnated at about 4% growth as compared to last fiscal. The MV switchgear segment has reported OBP of about 4- 6 months. The demand for MV switchgear is expected to sustain for at least next three to five years. Similar to LV the numbers of players has increased substantially, again pushing down prices .Investment in new infrastructural setup is set to increase the market for ISGs, RMUs and C&Rs.

High Voltage / Extra High Voltage

The extra high voltage switchgear segment has shown relatively better growth at 12% compared to other switchgear segments; High Voltage Switchgear has posted a growth of about 5%. The demand is slated to continue with the spending on HV-EHV Transmission systems on the increase.

The Switchgear Industry - Strengths

The Indian electrical equipment industry comprising of multinationals, large, medium and small players is quite capable of producing, supplying and exporting a wide variety of electrical equipment including switch gear and control gear items needed by the expanding industrial and power sector.

- India's Switchgear industry is fully developed and mature.
- This industry sector manufactures the entire voltage range from 240 V to 800 KV. The technology level is Contemporary.
- The major technological factors in the market are safety, maximization of efficiency and reliability.
- Quality of the switchgear gives a market edge for most of the suppliers. Dedicated commitment to the overall quality of the switchgear, prompt after sales service and support has been determined as a mandatory strategy for success.
- The industry has tried to reduce the adverse impact of internal factors by cost cutting, improving productivity and keeping up to date in new technologies.
- The industry is competitive in the field of design and engineering, as the skill sets available in the country are relatively less expensive.
- Per capita consumption of energy being relatively low, the growth potential for this industry in medium and long term is high.
- The 'Made in India' brand is gaining more currency/trust in the global markets.

New Developments/Trends in the Switchgear Industry

The domestic switchgear industry continues to innovate and upgrade its products to meet the evolving/future needs of its customers with the following products/trends:

Low Voltage

- Increased acceptance of electronic releases in circuit breakers
- Embedded Intelligence and communication enabled
- Improved materials for cost saving, environmental reasons and ROHS

- Movement from motor starters to submersible pump controllers
- Soft Starters
- Increased use of modular device in building electricals
- Vacuum contactors for higher ratings

Medium Voltage

- More use of magnetic actuators
- Field for Life-Maintenance free (IEC- M2 duty - 10000 Operations)
- Shift from Electromagnetic to Numerical relays
- Shift from Electrical sensors- CT/PT to electronic sensors.
- Ring Main Units

High Voltage / Extra High Voltage

- Compact GIS
- Compact AIS
- Compact switchgear
- Controlled switching
- Solid State switchgear
- Intelligent switchgear
- VCBs with higher ratings

Weaknesses

- Switchgear industry has to majorly depend on the financially weak EBs for its sales.
- Uncertainty and slow pace of reforms
- Increasing competition from unorganized sector and imports
- Macroeconomic challenges which constrain public and private funding
- Low investments in R&D,
- Integration/Assimilation of new technologies into development of new products in the sector needs improvement

Opportunities

- Generation capacity is expected to be agumented by around 78,577 MW under Eleventh Five Year Plan (2007-2012). More then 60,000 MW under construction.
- The T & D network expansion
- The Government is focusing on increasing the penetration of power supply in villages. Schemes like APDRP and RGGVY are providing an excellent opportunity for the LV and MV under, “Electricity for All” initiative
- Expansion of key industry sector like cement, steel, petrochemicals, telecom and others
- Expansion of Infrastructure like telecom, railways, airports, ports, roads, hospitals etc.
- Replacement and retrofitting programmes

Threats

Some of the threats faced by the Indian Switchgear Industry are:

- Underutilization of installed capacity
- Lack of HV switchgear test facilities in the country
- Increasing competition from unorganized sector in low end/low tech items/imports in LV segment and project imports
- One sided contracts by the user industries/ Price Variation contracts not accepted by many users
- Improper procurement planning/bunching of orders
- Increasing customization even for few items
- Entry of unproven contractors/ sub-contractors with minimal technical knowledge

Conclusion

Although the electrical industry is currently facing a slow down, the demand for electricity is ever increasing. The government following the industrys’ requests provided various stimulus measures like reduction in excise, service tax, interest rates, more liquidity etc. These measures may help improve the general sentiment, leading to recovery.

The APDRP is now in its second avatar and is slated to bring additional demand. Demand from Rural Electrification Programme and expansion of generation, transmission & distribution networks too is expected.

Ultra mega power projects, nuclear power programme, number of JVs by public and Private sector for manufacture of plant equipment including super critical 800 MW turbines and boilers etc too are under progress to help debottleneck the power generation programme.

Renewable/Alternative energy initiatives like wind, solar, biomass, mini/micro hydel etc are gathering steam.

All this offers a huge opportunity for the power sector in short and medium term.

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