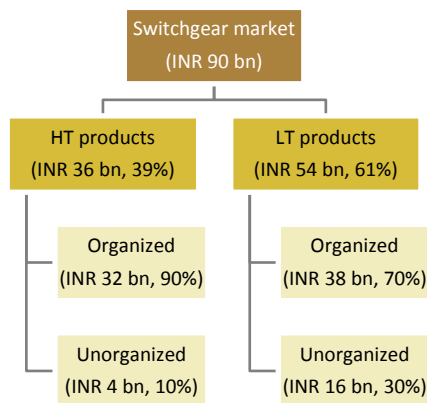


Transformer production in India has more than doubled in the 5 years between FY04-FY09. The production capacity has grown at a much faster rate. The production has grown at a much faster rate (CAGR of 18.4% from FY03 to FY09 as against CAGR of 10.5% from FY00 to FY03) after radical regulatory changes were implemented in the power sector. Production has grown at a healthy rate (CAGR of 15.9%) from FY08 to FY11.

Between FY10 and FY15, switchgears market is expected to double from its FY10 level which implies a healthy CAGR of 15.6% over FY10 - FY15.

Exhibit 1: Switchgear Market Composition (FY10)



Source: Industry research

Key drivers of the transformer and switchgear industry in India are:

Addition to generation capacity - 186 GW of power generation capacity is to be added over 10 years from FY07 to FY17.

Development of the transmission network in India - The national grid which forms the transmission backbone in the country would be upgraded to 2.3 times of its capacity at the end of 10th five year plan.

Focus on rural electrification and distribution - The Government of India has undertaken key initiatives such as RGGVY and R-APDRP which aim at upgrading sub transmission and distribution network, electrifying all un-electrified villages and habitations, modernization and renovation of the distribution network in the country.

Growing exports driven by demand in global markets - Indian exports of transformers and switchgears have grown steadily as Indian players gain presence in international markets. However, lack of technical capabilities in the domestic market has driven imports. In

the short term, we expect India to be a net importer, though imports are likely to stabilize over long term.

Replacement demand – Improvement in technology is creating a replacement demand in switchgear segment. In the transformer segment, installations done in 1980s would be due for replacement in the next 5 years.

Considering the above drivers, we estimate the annual transformer market in India to be INR 144 bn/annum during FY08-12 and INR 161 bn/annum during FY13-FY17.

Exhibit 2: Indian Transformer Market Estimates

Market driver	Avg. annual market (FY08-FY12)	Avg. annual market (FY13-FY17)
Addition to power generation capacity	14	19
Development of transmission network	38	45
Distribution and rural electrification	86	103
Exports driven by global demand	47	72
Imports	41	79
Total	144	160

Source: o3 Capital Analysis; Figures in INR bn

The switchgears market in India was estimated to be INR 104 bn in FY11 and likely to grow to INR 186 bn by FY15.

There is a clear trend among large established players in transformer segment to focus on enhancing their manufacturing capability to be able to manufacture EHV and UHV range of transformers. Established players are focusing on high margin specialized transformers such as dry type transformers and transformers based on newer technologies.

The switchgears market, largely organized is likely to face competition from the unorganized segment. This is more evident in the LT switchgear segment as compared to HT switchgear segment.

This report by o3 Capital captures the past performance, the future potential and key drivers of the transformer segment in India.

For a detailed report, please mail to prasanna.bora@o3capital.com