



Weekender

Your Think Tank for Investment Management

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Power Equipment Industry

Current Scenario

A growing economy needs power, both for domestic and industrial use. India is highly energy-deficient. The power consumed by an average US citizen per day is equal to that consumed by an Indian in more than 20 days. This, coupled with the fact that the affluent Indian middle class is spending a lot on domestic appliances, and a growing manufacturing industry needs more power to meet its energy needs, provides tremendous growth potential for companies in the power sector.

Even China has a per capita electricity usage rate of 1,684 Kwh — almost thrice that of India. This means that if Indians aspire to achieve the same standard of living as that of an average Chinese, power generation in India should triple from its current level. Assuming an average capital cost of Rs 4 crore to generate one mw of power, the estimated investment works out to over ~\$250 bn over the next few years. Around 30% of this will go to EPC contractors (such as L&T, HCC and IVRCL). The bulk of the balance \$165 billion will be spent on buying equipment from suppliers (such as Bhel, Siemens and Alstom). This amount is over 10 times the current turnover of the industry.

As metal (especially steel) is a major raw material for equipment manufacturers, 50% of the capital expenditure in the power sector is likely to be captured by metal producers such as SAIL, Tata Steel, Sterlite Industries and Hindalco. This translates into a revenue upside of \$80 billion. This amount is more than one-and-a-half times the metal industry's turnover last year. The additional generating capacity will translate into an equally huge upside for power generators like NTPC and Tata Power.

Assuming a plant load factor of 80%, they are likely to generate additional annual revenues of over \$75 bn, assuming an average sales realisation of Rs 2 per unit. In comparison, India's largest power generator, NTPC, clocked revenues of ~\$8 bn in FY07. More power will require additional transmission and distribution infrastructure. It will also lead to more power trading, as merchant power plants may become the norm. This will give greater upside to companies such as Power Grid Corp, which is building a national power grid, and PTC, the largest player in the power trading business.

Power Demand and Supply Position: India has world's fifth largest generation capacity and its transmission and distribution network is third largest in the world. However, it has one of the lowest per capita energy consumption in the world. Central Electricity Authority in its 17th EPS has projected that in order to completely wipe off the energy deficit; the energy requirement at the power station bus bar would be of the order of 968.659 Billion Units in 2011-12. Presently, the sector is characterized by acute shortages. The peaking shortage as on 31.3.2007 was 13.5% as against the deficit of 9.9% in power supply position during 2006-07. The last five year demand and supply position in the country is indicated as under:

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Power Situation in India				
Fiscal Year	Requirement	Availability	Surplus / (Deficit)	In %
2003	545983	497890	-48093	-8.81%
2004	559264	519398	-39866	-7.13%
2005	591373	548115	-43258	-7.31%
2006	631024	578511	-52513	-8.32%
2007	693057	624716	-68341	-9.86%
Note: Figures in MU; Source: CEA				
Capacity Addition in XI Plan				
Sector	Hydro	Thermal	Nuclear	Total
Central	9685	26800	3380	39865
State	3605	24347	0	27952
Private	3263	7497	0	10760
All India	16553	58644	3380	78577
Note: Figures in MW; Source: CEA				

Power sector to witness 78,577 MW capacity addition: This year marked the end of the 10th Five Year Plan. About 21,180 MW of capacity got added in the 10th Plan against a target of 41,100 MW - ~52% of target. In comparison, China has installed 1,05,000 MW in 2006.

Total installed capacity as on May-07 was 134,077 MW. The Government of India (GoI), in its mission "Power for all by 2012", estimated that Indian installed generation capacity should increase to 200,000 MW by the end of its Eleventh Five Year Plan in 2012. Also based on the demand projections made in the 16th Electric Power Survey, over 100,000 MW additional generation capacity needs to be added by 2012 to bridge the gap between demand and supply of power. Of the proposed capacity addition of 78,577 MW, 2265 MW has already been commissioned (as of 29th August 2007), while another 50,910 MW is under construction. The balance 25,732 MW capacity addition is under different phases of approval. This paves a way to bridging the gap between demand and supply of electricity gradually.

Power Sector Structure: The power sector value chain comprises of three elements - Generation, Transmission & Distribution. Transmission and Distribution (T&D) system comprises of transmission lines, transformers, substations, switching stations and distribution lines. In India, the T&D system is a three-tier structure comprising distribution networks, state grids, and regional grids. In India, SEBs is vertically integrated as intra-state distribution network and the grids are owned and operated by SEBs or state governments through SEBs. The transmission and sub-transmission systems supply power to the distribution system, which in turn supplies power to end-consumers. Distribution of power to end consumers is largely controlled by SEBs and licensees in the private sector. Most of the inter-state transmission links are owned and operated by Power Grid Corporation of India Limited.

Power Equipment Investment Rationale

The ongoing huge capex in the power value chain, i.e. generation, distribution and transmission, is translating into strong order flows for power equipment companies. The high order flows, coupled with stable margins (cost escalation based orders), are expected to drive 37.8% CAGR in earnings of power equipment companies over FY06-09.



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Fundamentals remain strong with high order backlogs

Power equipment companies have reported robust order backlogs in FY08 led by massive investments in the sector. Similarly, order booking has jumped sharply by an average of 87% yoy during the year. The strong order backlogs lend high visibility to revenues of power equipment companies over the next 2-3 years.

Healthy order inflows expected over the next 12-18 months

With the government's holistic approach towards deregulating the power sector, the macro environment continues to be buoyant. Reforms have been initiated across the power value chain, which has opened the floodgates to investments in generating capacity additions as well as Transmission & Distribution (T&D). Accordingly, we believe the sector will witness investments of over ~\$ 269 bn over the next five years. Consequently, power equipment companies are likely to witness strong order inflows over the next few years.

Raw material cost increases – not a concern

Most of the power equipment companies have cost escalation clauses for projects under execution. Moreover, the execution period for companies is typically less than 12 months. As a result, the raw material price hikes have limited impact on profitability of companies. However, certain export projects do not have escalation clauses, which results in margin compression for power equipment companies in these projects. Nevertheless, export projects account for a small proportion of order backlogs, and consequently have limited impact on earnings.

Earnings growth to remain robust

We believe power equipment companies are likely to report strong earnings growth over the next two years driven by robust revenue growth and stable margins. Moreover, the surge in order inflow across the entire value chain of power over the next 2 years imparts high revenue visibility and would lead to strong earnings momentum for power equipment companies over the next 12 months.

Outlook for Power Equipment Players

Massive investments in power generation, transmission, distribution, rural electrification and boom in housing & construction industry are expected to drive the demand for the power equipment manufacturers. The industry majors armed with price escalation clause for supplies to SEBs/ utilities are largely unperturbed by volatility in commodity prices but all equipped or equipping to capitalize on the strong growth opportunities by strategic investment in capacity and technology. On overall the power sector investments in the XI plan to be in the range of ~USD 250 billion offering strong growth potential for equipment suppliers to the power sector.

Indian Electrical equipment players are sitting pretty on a healthy strong order book and expected to sustain strong growth momentum for the balance period of current fiscal as well. Moreover with order inflow is all likely to stay impressive given strong impetus on power sector development to bridge the widening demand supply gap and encouragement to merchant power plants and UMPPs in addition to the planned capacity addition under five year plan. To take power to consumer matching investment of what happening in the generation side is required in T&D segment as well and the GOI is also realized the importance of it by fixing a target of reducing T&D loss to 15% by end of this five year plan. This is all expected to drive demand for the electrical equipment industry.



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Overall, the electrical equipment sector remains on a solid wicket for a promising longer innings. Players have been making strategic acquisitions, moving up the value chain, enriching their product, geographical mix and are also filling up technology gaps etc. This however as lead to pressure on margins in select cases, but the players are hopeful of synergy benefit and incremental margin gains, in the medium to long term. Thus, instead of obsession with current margins, the players are rightly heading for straddling the grater range of products and services, which will make them relatively comprehensive and stronger and qualitatively better for the medium to long term.

Future Outlook of Power Sector

The Ministry of Power has set a goal - Mission 2012: Power for All. Based on the 17th EPS, the total energy requirement in India will increase to 968,659 GWh by fiscal year 2012; 1,392,066 GWh by fiscal year 2017; and to 1,914,508 GWh by fiscal year 2022. This would lead to an annual Electric Peak load of 152,746 MW in fiscal year 2012, 218,209 MW in fiscal year 2017 and 298,253 MW in fiscal year 2022. The northern region is expected to contribute 30.1% and the western region is expected to contribute 28.4% of the overall annual Electric Peak load in fiscal year 2022. The Government has estimated the total investment potential of the sector at Rs 9,000 billion for a specified period up to fiscal year 2011. This represents a significant opportunity for capacity expansion and growth for power generation companies, both in the public and the private sector.

In line with the aggressive targets set by the government, a comprehensive Blueprint for Power Sector development has been prepared encompassing an integrated strategy with the following objectives:- Sufficient power to achieve a GDP growth rate of 8%; Reliability of power; Improved quality of power; Optimal power cost to ensure availability at affordable prices; and Commercial viability of power industry to make it attractive for private sector participation.

Key Players

BHEL

BHEL is the largest engineering and manufacturing enterprise in India in the energy-related/infrastructure sector. It manufactures over 180 products under 30 major product groups and caters to core sectors of the Indian economy viz., power generation and transmission, industry, transportation, telecommunication, renewable energy. BHEL has a wide network with 14 manufacturing divisions, 4 power sector regional centers, over 100 project sites, 8 service centers, and 18 regional offices across the country. An extensive network enables the company to promptly serve its customers and provide them with suitable products, systems, and services. It has acquired and adopted some of the best technologies from the leading companies globally, besides developing technologies in its own R&D center.

BHEL has also demonstrated its skills in thermal & hydro power projects. Further, to cater to the country's ambitious future power capacity addition programme, BHEL is also planning to increase its capacity to 15,000 MW by December 2009 from the existing 10,000 MW. Despite concerns on BHEL losing market share, it managed to record a strong order intake, evident from 80% Y-o-Y growth in its order booking (Rs 36,500 crs) for 9MFY08, with current order backlog to ~Rs 81,856 crs.



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ABB

ABB, incorporated in December 1949 as Hindustan Electric Company Limited, operates in two segments i.e. Power Technology and Automation Technology and offers its services and products to power transmission as well as other industry. Its Power Technology segment provides solutions for power transmission, power distribution and control and protection systems for power plants. The products include transformers, switchgears, breakers, capacitors, power line carrier communication equipment and relay control panels. Under Automation Technology segment, it offers products, systems, software and services for automation and optimization of discrete, process and batch manufacturing operations and related services. These technologies include measurement control, instrumentation, process analysis, drives and motors, power electronics, robots and low-voltage products.

ABB India currently contributes ~7% to the group volumes, while Asia contributes ~25% to it (revenues driven predominantly by India, ABB Group Annual Report 2006). The Indian operations are strategically important to the parent for two reasons – 1) fast growing domestic power market and 2) as a low-cost manufacturing base, the ABB group follows a global sourcing model and India will act as a global factory for high and medium voltage circuit breakers, and other sub assembly components.

The record growth in order intake during the year has strengthened the company's order backlog to ~Rs 5026 crs, around 50% higher than the opening order backlog of Rs 3372.3 crs at the beginning of the year providing significant visibility for the coming quarters. Recently, ABB in India has been awarded orders worth ~Rs 330 crores to provide turnkey substation solutions and a range of power products to PGCIL as part of their efforts to strengthen the transmission grid across the country.

Siemens

Siemens India is a 55% subsidiary of Siemens AG, Germany, which has presence in more than 190 countries. Siemens offers diverse products and services solutions in power generation, transmission and distribution, automation and drives, industrial solution and healthcare. It has nationwide sales and service network, 17 manufacturing plants, and 500 strong networks of channel partners. Additionally, the company also has four subsidiaries in India, viz., Siemens Information Systems Limited (SISL), Siemens Industrial Turbo Machinery Services Pvt. Ltd. (SITMS), Siemens BPO Services Pvt. Ltd. (SBPO), and Flender Ltd.

We believe that Siemens India will benefit from global management's increased focus on Indian markets not only in terms of domestic demand but also as an export hub to the Middle East and a sourcing unit for global operations.

Crompton Greaves

Crompton Greaves (CGL), a part of the B M Thapar group, is a pioneer in management and application of electrical energy. It is primarily engaged in designing, manufacturing, and marketing high-technology electrical products and services related to power generation, transmission, distribution, and executing turnkey projects. The company's business comprises three segments viz. power systems, industrial systems, and consumer products. Nearly, two-thirds of its turnover comes from products segment, in which, it enjoys leadership.

In the backdrop of encouraging investment environment, we remain positive on the company based on the prospects arising from its second overseas acquisition (Ganz). Post full consolidation of Ganz in FY08, we believe Crompton will not only expand horizontally (geographically), but also vertically (enhanced product portfolio).

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Key Parameters

Particulars	BHEL	ABB	Siemens	Crompton Greaves
CMP (Rs)	2092.45	1195.95	662.15	287.65
Mcap (Rs Crore)	102429.61	25343.18	11162.53	10544.29
PE (X)	35.33	31.62	31.22	15.13
EV	96710.03	29050.22	10225.08	12809.93
EV/Sales (X)	5.07	5.04	2.27	2.59
EV/EBITDA (X)	19.95	21.32	18.42	11.98
Mcap/Sales (X)	5.37	4.39	2.48	2.13
EBIDTAM (%)	25.41%	23.62%	12.35%	21.60%
EATM (%)	15.19%	13.89%	7.95%	14.08%

(Source: Capitaline, KRC Research; Prices as on 29th March, 2008)



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