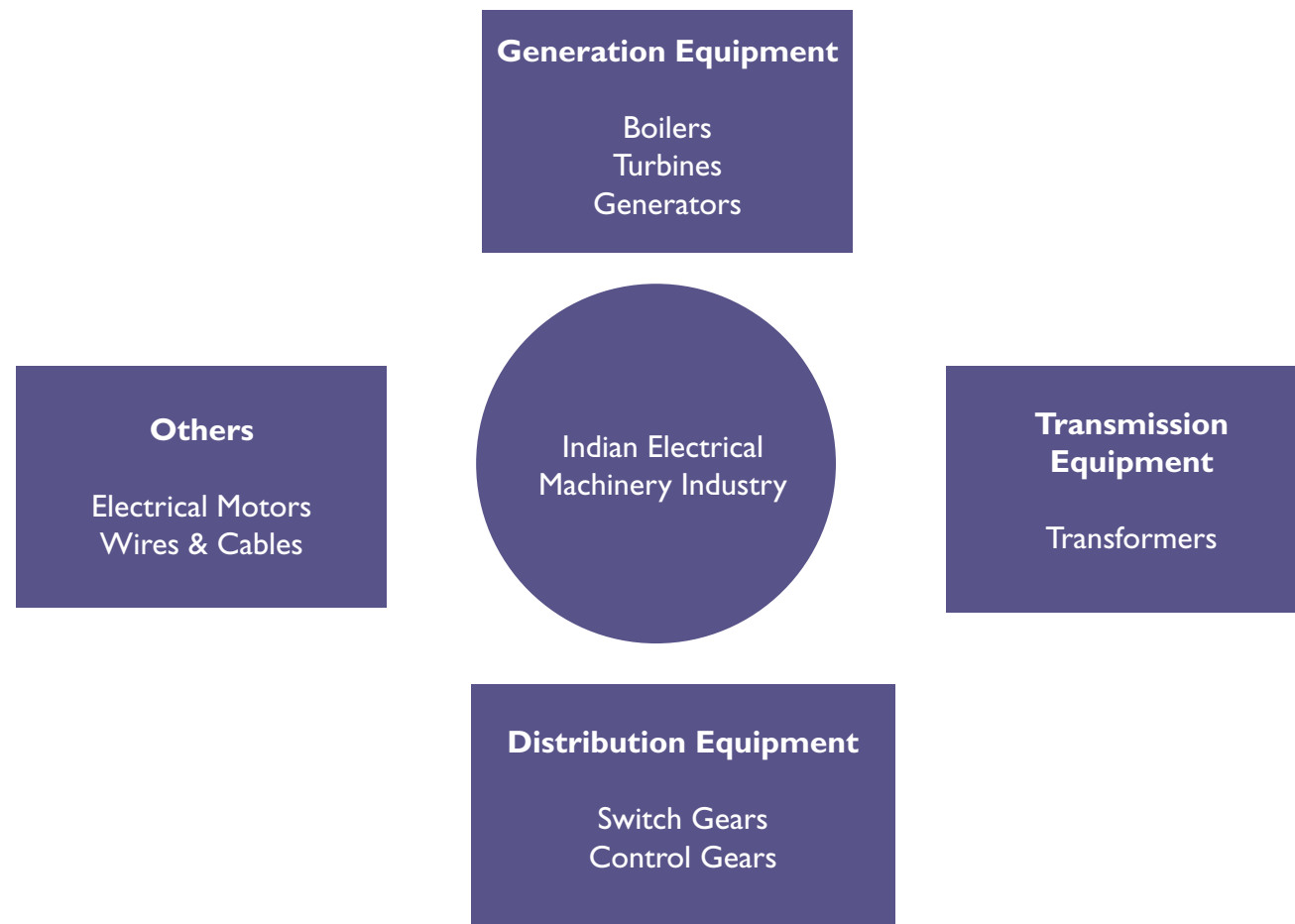




ELECTRICAL MACHINERY

December 2008

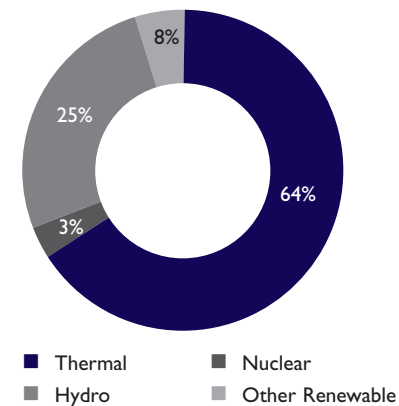
The Electrical Machinery Industry in India can be classified into the following segments



India uses several sources of power and power generation has been growing steadily over the years

However, growth in demand for power has outstripped capacity addition leading to a significant gap

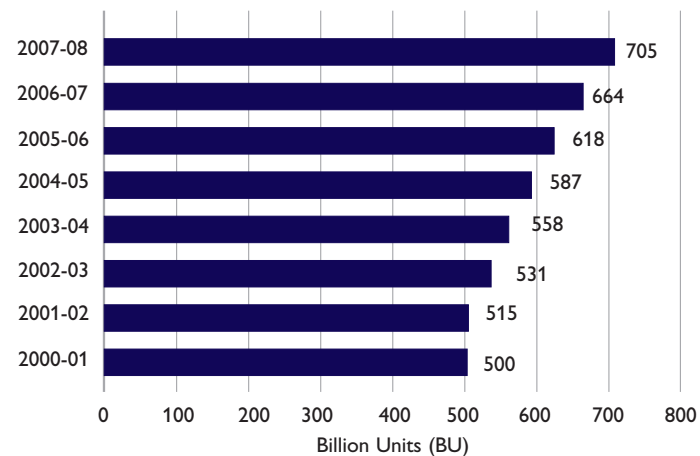
Share of Installed Power Generation Capacity 2007-08



Source: Ministry of Power, Govt

India uses several sources of power and power generation has been growing steadily over the years

Growth in Power Generation

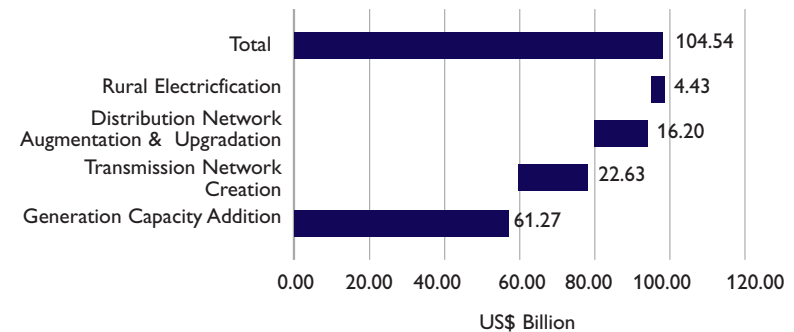


Source: Ministry of Power, Govt

Significant investment in capacity addition across segments is planned

It is expected that by the end of the current plan period, the existing capacity would increase by about 50 per cent.

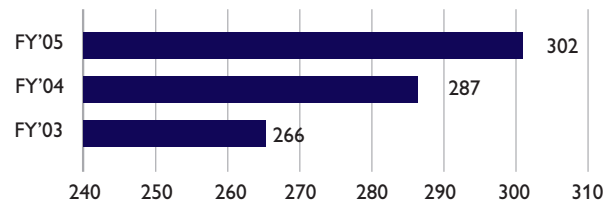
Expected Investment in Capacity Addition



Source: Ministry of Power, Govt

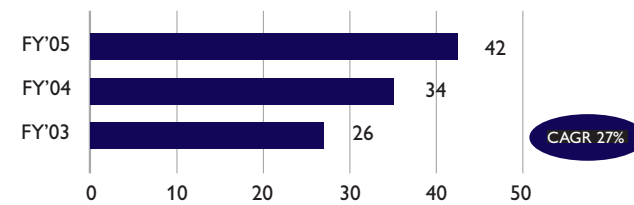
All segments in the Electrical Machinery sector have been experiencing robust growth

Turbines Production, US\$ Million



Source: Ministry of Heavy Industry, GoI,
www.indiastat.com

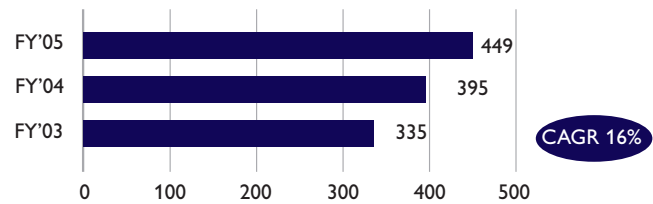
Switchgears & Control-gears production, US\$ Million



Source: Ministry of Heavy Industry, GoI,
www.indiastat.com

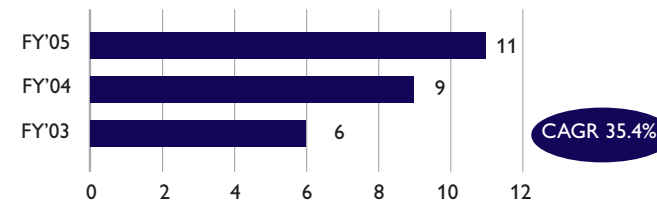
All segments in the Electrical Machinery sector have been experiencing robust growth

Boilers Production, US\$ Million



Source: Ministry of Heavy Industry, Govt, www.indiastat.com

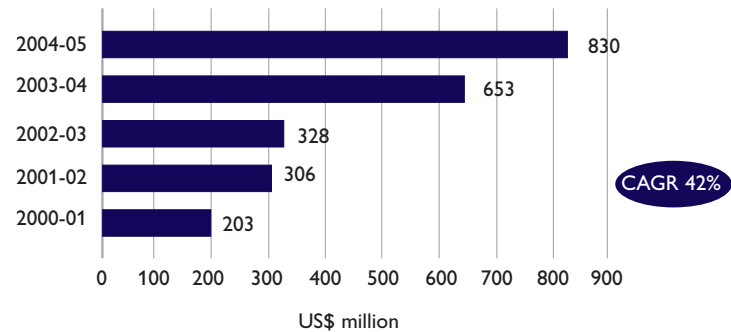
Motors - Power Consumption, Million HP



Source: Ministry of Heavy Industry, Govt, www.indiastat.com

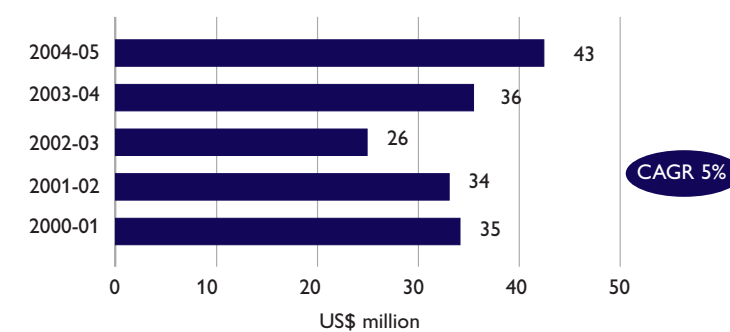
Apart from domestic demand, exports have also been growing

Electrical Machinery Exports, US\$ Million



Source: Engineering Exports Promotion Council

Transmission Equipments, Exports US\$ Million

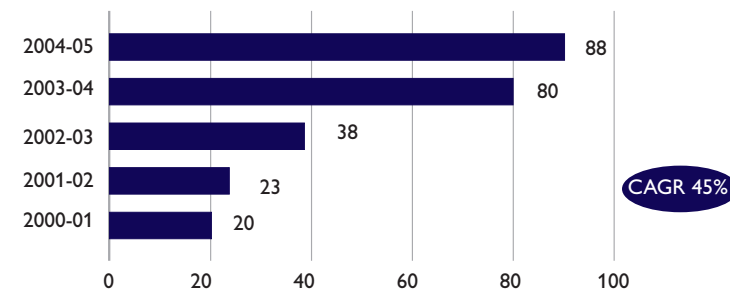


Source: Engineering Exports Promotion Council

Apart from domestic demand, Exports have also been growing

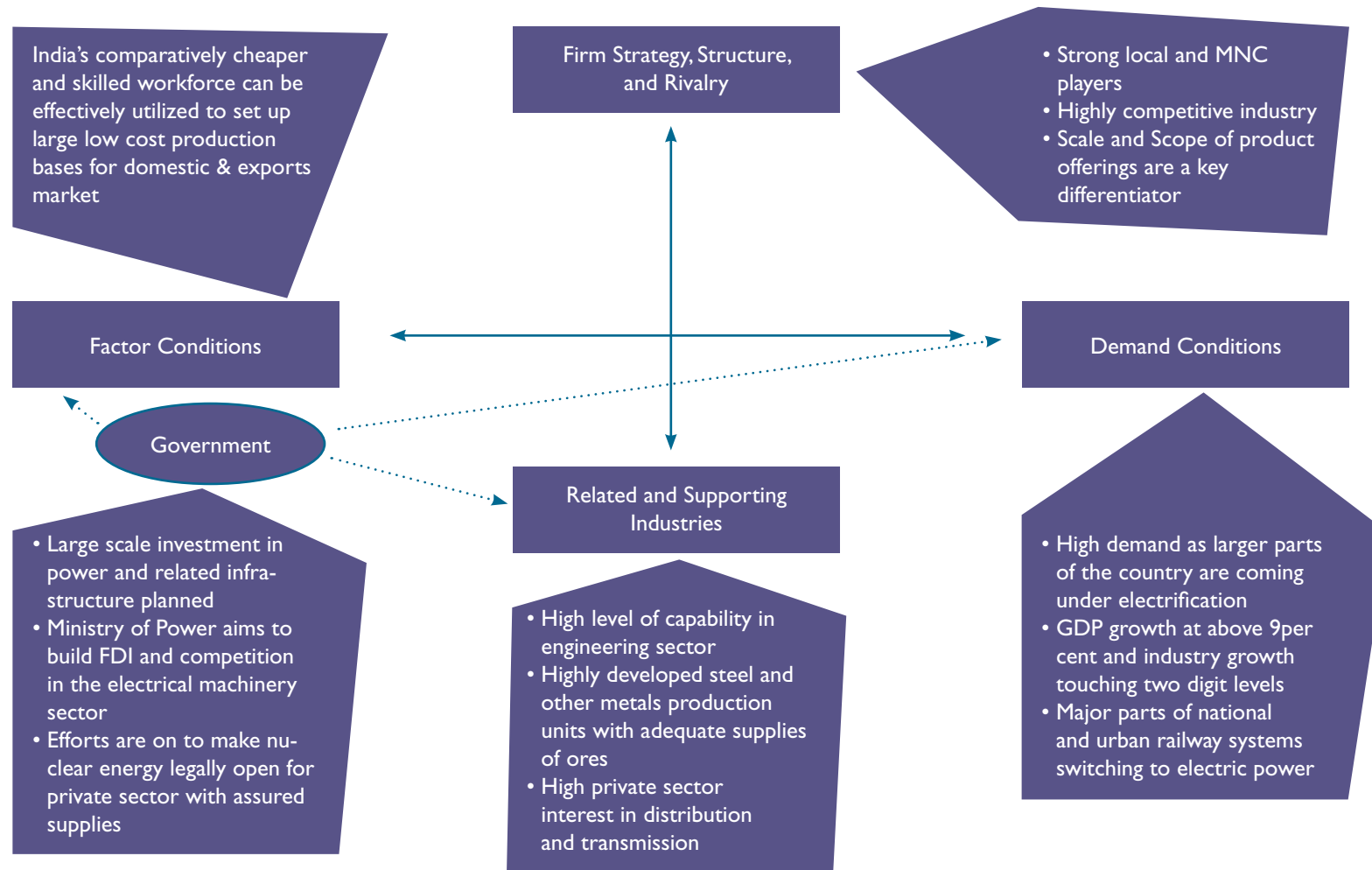
Key factors favouring India as a manufacturing base include India's labour cost advantage and adequate supply of key raw materials such as steel and other metals

Electric Wires/Cables, Exports US\$ Mn



Source: Engineering Exports Promotion Council

India offers several advantages that contribute to growth in the sector



Source: KPMG Analysis

The sector offers opportunities for growth, but will require investment in technology

Threat of New Entrants



- Well established players
- Technology intensive sector
- Requires significant investment

Supplier Power






- Adequate supplier base
- Most suppliers are small in scale and size as compared to manufacturers

Competitive Rivalry



- Technology and product range are the key differentiators
- Ample opportunities for growth
- Well established players

HIGH	
MEDIUM	
LOW	

The sector offers opportunities for growth, but will require investment in technology

Customer Power






- Number of players and product range
- Manufacturers extending offerings to include services as well

Threat of Substitutes



- No substitutes currently for products in the sector

Source: KPMG Analysis

HIGH	
MEDIUM	
LOW	

Critical success factors for manufacturers in the sector

Capability to Invest

- Buyer segments are very large players and prefer an assured supply with scale benefits from a consolidated supplier base.

Technology

- Factors like upgradation of transmission lines to higher capacity levels, larger scale generation units, etc are leading to significant changes in technology requirements

Spectrum of Products and Services

- User industries differentiate on scale and scope access to a business relation with any such player would entail build up of a range of capabilities and products

Attractive States for Investment

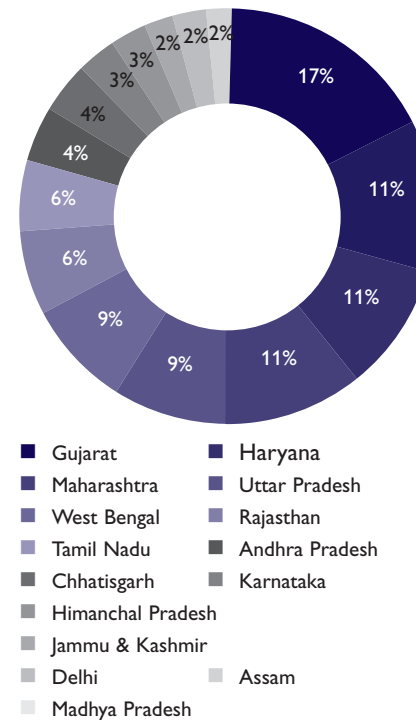
Factors used to assess states for the sector:

- Demand conditions
- Presence of supply sources of power like Hydro, Thermal, Wind, etc
- Presence of supporting engineering industries in the states

Based on these, the following states emerge as attractive locations:

- Gujarat
- Maharashtra
- Uttar Pradesh
- Tamilnadu

Funds Released for Capacity generation by Individual States



Source: Ministry Of Power, GOI

Profiles of Key Electrical Machinery Players in India

Bharat Heavy Electricals Ltd

- BHEL has emerged as the forerunner in technology on equipment for power plants, contributing to about 70 per cent of market requirements
- Technology absorption through technical collaborations with world leaders has contributed to BHEL's achievements. The collaborations include Prommashenport of CIS; General Electric, Combustion Engineering, National Oil Well, all from the USA; Sulzer of Switzerland; Hitachi and Toa of Japan; Siemens of Germany; Asea Brown Boveri of Canada; Flakt of Sweden; Alstom and Neypic Creusot-Loire of France; and Weir of the UK

Profiles of Key Electrical Machinery Players in India

Crompton Greaves

- It is India's largest private sector enterprise, extensively engaged in designing, manufacturing and marketing high technology electrical products and services related to power generation, transmission, distribution as well as executing turnkey projects
- It is one of the largest supplier of industrial systems
- CG acquired Pauwels and Ganz to complete its product range in transformers, enabling it to leverage both in domestic and exports markets

Profiles of Key Electrical Machinery Players in India

ABB

- With a wide product range, global competence and ability to provide end-to-end solutions, ABB is also one of India's leading power systems producer
- Its ability to provide end-to-end solutions (from design to execution from its wide range of power systems and automotive technology products), gives ABB a sustainable competitive edge
- ABB also has capabilities in design, procurement and implementation of automation drives for process industries

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