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HPL Electric & Power

The Indian electrical equipment industry is estimated to grow at a CAGR of 8–12% during 2016–2020, varying across electrical equipment. LT electrical equipment such as switchgears, energy meters and wires and cables are expected to witness a faster growth in comparison to generation equipment. Further, the generation equipment segment is targeted to reach a size of ₹125,000 crore and the T&D Equipment segment is targeted to reach a size of ₹375,000 crore by 2022.

Lalit Seth, Chairman and Managing Director, HPL Electric & Power Ltd shares his views with **Sandeep Sharma** about his company, core competencies, metering solutions, market potential for LED lights, market size, challenges being faced by the Electrical industry and the way forward to boost growth of the Power sector. Edited Excerpts...

▶ Tell us about your company, objectives and core competencies?

We are an established electric equipment manufacturing company in India, manufacturing a diverse portfolio of low voltage electric equipment, including, metering solutions, switchgears, lighting equipment and wires and cables, catering to consumer and institutional customers in the electrical equipment industry. We have the largest share in the market for electricity energy meters in India, with one of the widest portfolios of meters and the fifth largest market share for LED lamps (Source: Frost & Sullivan Report). Our manufacturing capabilities are supported by a large sales and distribution network with a pan-India presence. We currently manufacture and sell our products under the umbrella brand 'HPL', which has been registered in India since 1975.

We believe that our research and development capabilities have enabled us to keep abreast of technological developments in the electric equipment industry. Our research and development efforts include design and development of all types of energy metering solutions, including interactive communication between metering devices and metering infrastructure that includes automatic meter reading ("AMR") and advanced metering infrastructure ("AMI"), prepayment metering solutions, solar net metering solutions, smart meters with two way communication and a complete range DLMS compliant meters, amongst others, and technologies and solutions that allow for active monitoring of energy consumption for electric equipment. For instance, we have developed a street lighting system that helps in saving manpower through automatic settings for sunset and sunrise timings and remote energy metering and dimming of such lights during off-peak hours to save energy.

▶ What's the latest trend in metering solutions?

The market for meters in India was estimated to be ₹3,000 crore in fiscal 2015, with organised participants contributing to

over 80% of the total market. There has been a continued and visible shift from demand for traditional meters to demand for metering solutions, which helps in energy management as compared to mere monitoring and billing functionalities.

Major consumer segments for meters in India are (a) public and private power utilities for residential and grid metering; (b) conventional and non-conventional captive power plants; and (c) industries and commercial establishments. Public and private power utilities are mostly consumers of tariff meters, captive power plants consume panel meters, and industries and commercial establishments consume panel and smart meters, based on their requirement. Few developers of residential buildings, however, provide prepaid meters residents, which are directly purchased by developers and installed at such residential buildings.

Demand for electronic meters dominates the market for meters and will continue due to replacement market for electrochemical and old meters and orders from power utilities. Of this, power utilities account for nearly 90% of the revenue generated from sale of tariff meters. In fiscal 2015, the industrial segment was the largest consumer of panel meters, power generation companies for tri-vector meters and commercial establishments for electronic meters. With increasing focus on reliability and accuracy, the contribution from these segments is likely to witness an upward trend.

Prepayment meters have recently seen steady growth as more power utilities are installing them to increase consumer visibility in terms of load patterns and to reduce the percentage of under-recovered revenue. While in developed countries prepayment meters are considered to be tariff meters, in the India they are considered as smart meters and are considered as the first step towards establishment of smart cities and smart grid projects. Smart grid pilot projects are under implementation mostly in the southern and western parts of India although, northern and eastern states also have some ongoing pilot projects.

▶ What's your take on the market potential for LED lights in India? How far you are successful in grabbing the market share?

The Government plans to spend over ₹3 lakh crore to recast 100 cities, improving the existing infrastructure, which will translate in increased demand for electrical equipment in India. Further, policy reforms such as allowing 100% foreign investment in the real estate sector, tax benefits for foreign investors, establishment of smart cities and fuelling urbanisation, the industry is expected to grow at 30% over the next decade. Increasing urban population is expected to cross 590 million by 2030, and such urbanization and growing household income are expected to fuel demand for residential real estate, which is a significant consumer for a variety of LT electrical equipment and lighting solutions, and is expected to drive the entire value chain of electrical industry.

HPL, backed by a highly skilled team of engineering professionals & R&D centres is keeping pace with the emerging modern trends, especially in lighting, which in its own way is contributing towards successful implementation of Smart Cities. For instance, among the notable projects the company has executed LED street lighting in Srikakulam, Prakasam and east Godavari (Andhra Pradesh), various municipalities in Rajasthan and at Varanasi Ganga Ghat and Varanasi Nagar Nigam, in Varanasi (Uttar Pradesh) and recently the lighting of entire Kumbh at Ujjain (Madhya Pradesh) involving supply and installation of LED streetlights and supplied LED tube lights for installation at the office of the electricity department in Delhi.

▶ What can be the size of Electrical Equipment market in India? What's your market share so far?

The Indian electrical equipment industry is immensely diversified, comprising manufacturing capabilities for high technology equipment on one hand, to low technology electrical components. The electrical equipment industry contributes 9.9% in value to the entire Indian manufacturing sector, translating to 1.4% of India's GDP. The Indian electrical equipment industry is estimated to grow at a CAGR of 8–12% during 2016–2020, varying across electrical equipment. LT electrical equipment such as switchgears, energy meters and wires and cables are expected to witness a faster growth in comparison to generation equipment. Further, the generation equipment segment is targeted to reach a size of ₹125,000 crore and the T&D Equipment segment is targeted to reach a size of ₹375,000 crore by 2022.

The Indian electrical equipment industry comprises power generation equipment and T&D Equipment. The power generation equipment includes boilers, turbines and generators, whereas T&D Equipment includes transformers, switchgears, transmission towers, wires and cables, energy meters and other equipment such as capacitors, instrument transformers and surge arrestors. T&D Equipment is further classified into HT and LT electrical equipment.

LT or low voltage ("LV") electrical equipment is a rapidly evolving industry segment, traditionally driven by demand from the Industrial segment. However, the LV

Key demand drivers for the electrical equipment industry

The electrical equipment industry has been primarily driven by investments and modernization drives across the transmission and distribution segment. The ongoing addition to transmission lines capacity and sub-station projects, addition in power generating stations, especially of renewable energy like wind and solar energy and modernization initiatives such as the Restructured Accelerated Power Development and Reforms Program, have fuelled domestic demand for electrical equipment.

Some of the key demand drivers for growth in the electrical equipment industry are set forth below.

A. Establishment of Smart Cities and real estate growth

The Government plans to spend over ₹3 lakh crore to recast 100 cities, improving the existing infrastructure, which will translate in increased demand for electrical equipment in India. Further, policy reforms such as allowing 100% foreign investment in the real estate sector, tax benefits for foreign investors, establishment of smart cities and fueling urbanisation, the industry is expected to grow at 30% over the next decade. Increasing 104 urban populations is expected to cross 590 million by 2030, and such urbanization and growing household income are expected to fuel demand for residential real estate, which is a significant consumer for a variety of LT electrical equipment and lighting solutions, and is expected to drive the entire value chain of electrical industry.

B. Affordable Housing

The growing focus on affordable housing market by the private sector and the Government has resulted in several initiatives to promote the segment including National Urban Housing and Habitat Policy, Jawaharlal Nehru National Urban Renewal Mission and Rajiv Awas Yojana. The smart cities initiative also includes the 'housing for all' initiative, which plans building of two crore homes for the economically weaker sections in India by 2022. This initiative will not only boost the construction and cement industry, but will also put a major thrust over the electrical equipment industry in India. Along with driving the consumer end of the electrical equipment industry, the affordable housing segment also promotes innovation into low cost and affordable electrical solutions targeted towards the segment.

C. Open markets favouring a competitive landscape

The power sector has been de-licensed, which helps the entry of major global participants in India. This initiative will increase the amount of investments in the power sector, which will provide a huge opportunity for the sector to thrive. The entry of private participants with strategic plans and higher investment would facilitate the EE industry to grow exponentially.

D. Capacity Addition and Investments in the power sector

India's power generation installed capacity estimated to reach 350 GW in 2022 from 234 GW in 2014. The added capacity in India would fuel demand for electrical equipment and the Government plans on curbing the imports, thus the domestic electric equipment manufacturing industry would grow at a substantial rate. Additionally, Government initiatives such as the 'Make in India', will help the sector to become a key participant in the global industry. Also, the Government is pushing for investments in the power sector and providing easy financing for the power companies, which will help the industry to grow domestically as well. Planned Power Generation capacity additions will further boost domestic transmission and distribution equipment industry with an expected capital expenditure ₹200,000 crore in the transmission sector and estimated ₹300,000 crore expenditure as part of distribution sector capacity additions/reforms corresponding to 12th FYP.

E. Modernization drives and new technology adoption

In addition to rapid expansion and capacity addition, India has witnessed a series of modernization drives as part of its ageing electricity grid infrastructure. Notably initiatives around substation metering schemes, rural electrification programs, street lighting and smart metering have significantly increased demand for modern electrical equipment. Smart meters, fire resistant wires and cables, LED lighting, and gas insulated switchgear are technology adoptions that have witnessed tremendous growth in recent years. These modern products have offered domestic and international companies new market avenues for growth where customers have readily understood the advantages associated with such upgrades and adopted for usage of the same.

F. Indian Electrical Equipment Industry Mission Plan 2012-2022

The plan sets the guidelines for making India the choice for production of electrical equipment, thereby making way for domestic production of electrical equipment and reaches an output of US$ 100 billion by balancing exports and imports. Some of the focus areas as part of the mission plan include achieving industry competitiveness, technology up gradation, skill development, promoting growth in exports, including export to emerging markets and enabling conversion of latent demand.

electrical equipment industry has grown significantly in last decade across other sectors such as commercial, residential and infrastructure. Broad product categories under LV electrical equipment include LV switchgears such as air circuit breakers, MCCB, changeover switches; LV control gear such as contactors, relays and capacitors; energy meters for household electricity metering purposes, panel meters for industrial metering purposes and utility meters; LT wires and cables used as part of industrial and commercial wiring; building wires and flexible wires used as part of residential wiring; lighting products such as CFL, LED lamps, incandescent lamps; and residential and commercial protection devices such as MCB and residual current device.

▶ What are the challenges being faced by the Electrical industry in India?

Low Budget Allocation for Electrical Equipment during Project Planning:

- End users often miss on allocating budgets for electrical equipment at the planning stage. This results in last minute allocations during the implementation stage as most products are available off the shelf.
- With constrained budgets, end users tend to choose low-technology, low-priced LV switchgear components, thus challenging organized sector market players from offering technologically superior products and solutions.

Increasing Pricing Pressures Due to High Competition:

- The Indian LV switchgear market is well-established with over 40 market players.
- The market is competitive, especially for volume-driven products such as MCB, MCCB, and HRC fuses, making it difficult for the large MNC market players to sustain their market share with dipping profit realization.
- A large number of local market players, coupled with fluctuating raw material prices and imports from other Asian countries and the pressure on the market players to reduce prices to sustain business, deter the market from growing to its actual potential.

Uncertainty and Delays in Implementation of Various Power Reform Programs / Initiatives:

- Power reform programs like the Rajiv Gandhi Grameen Vidyutikaran Yojna (RGGVY) and Revised Accelerated Power Development and Reforms Program (R-APDRP) have been charted out to achieve the objective of “Power for All” by 2012.
- However, lengthy evaluation and approval procedures at the implementation stage create uncertainty and lack of confidence in private investors.
- This creates periodic artificial demand and market players are confronted with irregular and bunched orders resulting in overbooked factories and further delays. Production planning in this case becomes challenging.

▶ What is the way forward for the stakeholders to boost growth of the Power sector?

The Indian Power sector has witnessed a considerable change and evolution in the last two decades owing to several policy and regulatory measures. Further, continuous growth in population and increasing urbanization and industrialization have constantly added to the electricity demand in India, with 300 million of existing population yet to receive electricity connections and the remaining one billion population having intermittent access to electricity. Programmes such as rural electrification and ‘Power for All’ have been accelerating power generation capacities and further, helping in building effective systems for demand-side management to ensure overall efficiency improvements across generation, transmission and distribution.