

**INDIA
SMART GRID
WEEK 2017
SPECIAL**

Smart Grids

THE RIGHT MOVE

**GREEN AHEAD: SOLAR
SPOTLIGHT: IT IN POWER
SPECIAL FOCUS: WATER TREATMENT**



Gautam Seth,
Jt. Managing Director,
HPL Electric and Power Ltd



Marc Jarrault,
Managing Director,
LAPP India Pvt Ltd



Dev Arora,
Founder and CEO,
8Minutes Future Energy Pvt Ltd



Dr Rashid Al Leem,
Chairman, Sharjah Electricity
and Water Authority

“There is immense business opportunity in the metering space”

Says Gautam Seth – Jt. Managing Director, HPL Electric and Power Ltd., in conversation with Monica Chaturvedi Charna...



How do you view the progress that India is making on the front of T&D infrastructure upgradation, digitalisation and the entire smart grid initiative?

Both the Deen Dayal Upadhyaya Gram Jyoti Yojana as well as the Integrated Power Development Scheme (IPDS) are progressing in terms of intent and design in a much better way now, despite the ground level challenges. The recently announced Budget 2017 also saw the allocation going up for both the programmes by 25 per cent, which is very encouraging. However, the implementation can surely improve.

The government has been emphasising on deployment of smart meters in a big way, and

last month only Power Minister, Piyush Goyal announced that 25 crore smart meters will be procured. Thus, on a medium-term or long-term basis, there is immense business opportunity in the metering space.

Another major thrust on removing inefficiencies from the power distribution space is coming through the government’s UDAY scheme. 21 states have already signed up, with Tamil Nadu being the most recent state to sign up. There are a lot of efficiency parameters under UDAY which the utilities need to abide by, and herein metering plays a very important role. It will not just curb inefficiencies, but also improve the revenue of the utilities.

Somehow, we have seen delays in the implementation and in the first 6 months of 2016, we saw a slowdown in the procurement of meters from the utilities. The reason for this was the ambiguity between the Centre and the states with regard to the specifications and the procurement process. As a result, there were very few tenders and it was only by October-November that the tender process resumed to normal. Now, with new tenders coming up, the industry will surely come back on track.

How achievable do you think is the government’s target of deploying 25 crore meters in the next 3-4 years?

The government needs to decide on the procurement process and then work on the financing between the states and the Centre. In addition, the entire infrastructural eco-system needs to be put into place for IT integration for two way communication in meters. Also, proper training will have to be given to the utilities. However, from the industry point of view, it is surely an achievable target and we are prepared to cater to this demand.

The highest revenue comes from the metering division and it constitutes around 45-48% of the total revenue.

With all the push from the government and the industry also gearing up to meet the demand, do you think actual deployment across households, industries and commercial units could also be a challenge?

The utilities are well equipped with the infrastructure for installing the meters so that should not be an issue. The only concern that can surface is because of the non-procurement by the utilities, the stocks might have got depleted. Many states are now coming up with big tenders, which are in various stages of evaluation. Majority of these tenders are for the regular meters while some are for smart meters. So, the demand from the utilities is coming back.

What kind of growth have you witnessed in the metering space in the last 5 years, and what is your projection of this growth in the next 5-10 years?

In the last 5 years ending FY16, we have seen more than double growth in metering revenue. In terms of technology also, we have grown. At HPL, we have a wide portfolio including the basic meters (single phase, two phase and trivector meters) and panel meters (constituting 21% of the entire market). The panel meters segment has grown at an average CAGR of 11.5%.

Going forward, the growth will be around 10-11% and by 2020, smart meters will come up in a big way and register exponential growth. Having said that, the implementation of smart meters can happen much earlier, rather than the government and industry waiting for 2020.

Will the government try to cut down the profit margins on smart meters for players like you (as happened in the case of LEDs) since it is targeting at a big number of procurement?

The cost will come down purely on the basis of the volumes. For instance, if a company today is manufacturing 1,000 meters, the number will grow upto a few lakhs, so the cost is bound to come down. The government is aiming at passing on the cost benefit of large scale manufacturing to the utilities and the ultimate consumer. Hence, this initiative will benefit all the stakeholders.

There was a dip in the sales and revenue of metering companies in the last few months. Have the sales bounced back, and are you happy with your current order book?

As on the beginning of February 2017, HPL Electric had an order book of 27 crore in metering. Looking at the figures of past 6-8 months, this is still a healthy number although it could have been much

The government needs to decide on the procurement process and then work on the financing between the states and the Centre. In addition, the entire infrastructural eco-system needs to be put into place for IT integration for two way communication in meters. Also, proper training will have to be given to the utilities. However, from the industry point of view, it is surely an achievable target and we are prepared to cater to this demand.

more. However, it is interesting to see that a lot of tenders have come up, which is a positive sign. The fact that utilities cut down procurement in the last few months, their stocks would have depleted and there will now be a substantial requirement of meters, which will push the sales.

How are your meter sales divided between selling directly to the utilities and to the distributors?

Almost 20% of our sales goes to the channel partners or distributors, who in turn may be selling to customers or for sub metering purposes. The prepaid meters go to the builders while net meters go into solar applications.

Kindly shed light on HPL's export orientation and expansion plans.

We are currently exporting to almost 40 countries although our export sales are still very negligible. However, in terms of product range, we are exporting more for non-utility applications. We have been exporting largely switchgears to the Middle East, Africa and the SAARC nations. Going forward, the export market will be a big focus area for us.

Out of the four major divisions of HPL, namely, meters, switchgears, LED & lighting, cables & wires, which is your biggest revenue churning?

The highest revenue comes from the metering division and it constitutes around 45-48% of the total revenue. In fact, till five years back, metering contributed 56% of the total revenue of the company. So, while the revenue from metering has doubled from 56%, the non-metering products have outgrown it. The non-metering divisions cater to the B2C market, which has seen a constant growth.

How is the market for net meters growing and is HPL already offering these meters in the market?

The net meter market is picking up in a big way thanks to the government's ambitious plan of 40GW of rooftop solar installations by 2022, and HPL is engaged in offering net meters in the market.

Manufacturing Marvel

By Monica Chaturvedi Charna



HPL Electric and Power Ltd is a name to reckon with in the electric equipment manufacturing domain with expertise in offering a wide range of meters, switchgears, cables and wires, and lighting products. As per Frost & Sullivan report of February 2016, the company registered the largest market share in India in the electricity energy meters space in fiscal 2015, and the fifth largest market share for LED lamps during the corresponding period.

HPL currently manufactures and sells its products under the umbrella brand 'HPL', which has been registered in India since 1975. All the products are manufactured within dedicated manufacturing facilities for each product vertical, as well as several components used in the products, with product customisation capabilities for institutional and corporate customers.

The company undertakes testing of products at its in-house testing facilities to ensure optimum quality. All of HPL's manufacturing facilities have been accredited with management system certificates for compliance with ISO 9001 requirements. In addition to this, some of its manufacturing facilities have been accredited with environmental system certificates for compliance with ISO 14000 requirements and with OHSAS 18001 certifications for implementing occupational health and safety management systems at such facilities. Such certifications enable the

company to export its products to a wide market.

Presently, the company has seven manufacturing facilities located across the states of Haryana and Himachal Pradesh, including one manufacturing facility owned and operated by a subsidiary. It has over 2,700 dealers, around 27,000 retailers and 90 branch offices. The manufacturing process capabilities include design and product development, component design, tool making and commercial production. As on 31 March 2016, the aggregate installed capacity of meters was nine million, including that of the Himachal Energy Manufacturing Facility; switchgears was 16.51 million; lighting equipment was 26 million and wires and cables stood at 194.40 million.

On a visit to HPL's Gurgaon facility that manufactures single phase meters, three phase meters, digital panel meters, digital energy meters, smart meters, trivector meters, meter cover boxes, and meter PCBs, PowerWatch India spoke to Gautam Seth – Joint Managing Director, HPL Electric and Power Ltd. He shed light on the company's commitment to following stringent quality checks at various stages of production as well as for components sourced from the suppliers. The testing facility at Gurgaon has been accredited by the NABL, to be in compliance with ISO/IEC 17025:2005 in respect of general requirements for the competence



of testing and calibration laboratories for electrical testing.

The facility is equipped with 3-D design printing for quick and efficient design validation, and tool rooms for making rapid prototypes. This is followed by moulding designs for tools that are used to ensure efficient moulding process. A variety of moulds including plastic injection moulds, plastic compression moulds, pressure die cast moulds and sheet metal moulds are manufactured at the facility. A well defined and streamlined manufacturing process ensures that the facility churns out 25,000 meters per day. Also manufactured at the facility are tools for a complete range of MCBs, MCCBs and meter cupboard.

“In terms of manufacturing, we are very well backward integrated, meaning all types of hardcore manufacturing – be it mouldings, painting of enclosures, sheet metal works, etc. is done in-house. The electronics manufacturing is key to our operations, especially for the metering division and also for CFLs. We manufacture PCBs for CFLs and LED drivers. Thus, all the in-house manufacturing gives us an edge over our competitors,” he opined.

“HPL believes that the company’s manufacturing facilities enables them to expand operations with ease to meet future demand at minimised cost of expansion,” he added.

Certain products manufactured at the manufacturing facilities of HPL are certified with the ISI mark by the BIS, and tested by various independent testing laboratories that have been accredited by the National Accreditation Board for Testing and Calibration Laboratories, DSIR (NABL), including the CPRI and the laboratory of the Electrical Research and Development Association (ERDA).

Further, some of the products have been accredited with the ‘CE’ mark as well as by KEMA Quality BV, for compliance with standards prescribed for electric equipment under European law. For instance, MCBs manufactured under the sub-brand ‘HPL Techno’ have been certified to be compliant with the IEC System for Mutual Recognition of Test Certificates for Electrical Equipment (IECEE) CB Scheme by KEMA Quality B.V.

Additionally, the company’s R&D centres are approved by the Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India (DSIR) and have in-house tool rooms and testing facilities. The company is able to achieve greater efficiency due to its in-house testing process, reducing the time taken for and the cost of manufacturing products, from design to commercial production, resulting in higher profit margins. Further, the manufacturing facilities allow the company to effectively meet any expanded demand for products.

Details of manufacturing facilities

Location	Area (in sq. feet)	Year of commencement of operations	Aggregate installed capacity
Meters			
Gurgaon Facility I	15920.04	1998	6,000,000 electronic static energy meters
Gurgaon Facility II	112,741.84	2010	15,000,000 parts/components of lighting equipment including CFL and LED and of electronic energy meters equipment and meters
Himachal Energy Manufacturing Facility	94,176	2006	3,000,000 electronic energy meters, panel meters and clips for panel meters
Switchgears			
Kundli Facility	235,694.44	2011	5,000,000 units of switchgears and parts of electronic energy meters and parts of lighting equipment, MCBs and MCCBs and parts of CFL, PCBCFL, CFL Copper Ballast, parts of TS-FTLuminaires and wires and cables and parts of meters and switchgears
Jabli Facility	93,961.19	2006	11,508,000 units of MCBs, distribution boards and panels, MCB isolators, MCB changeover, earth leakage circuit breaker and switches
Lighting equipment			
Sonepat Facility	103,157.11	2008	26,000,000 units of lighting equipment including CFL, LED and luminaires and street lights
Wires and cables			
Gharaunda Facility	101,479.99	2014	194,400,000 meters of wires and cables

