

Electrical



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- Sriram Ramakrishnan, MD & CEO, Consul Consolidated Pvt. Ltd.

Consul developing tailored solutions for Indian market

With no end in sight for power cuts in India, the large inverter market is expected to witness robust growth especially with increasing awareness about large inverters being a clean and cost-effective alternative to DG sets. Consul Consolidated, one of the top UPS and stabiliser manufacturers in India, recently acquired Megatech, a Pune-based power electronics company which is a pioneer and leader in the Indian inverter market. Consul now offers these reliable, field-proven large inverters across India through its pan India sales and service network. Sriram Ramakrishnan tells about the large inverter industry, future of DG sets, and Consul's game plan.

Large inverters industry in India

Everyone is aware of domestic inverter also known as home UPS which has become a necessity for every home or small office across the country given the power outages experienced across India. These domestic inverters are typically in the 600 V to 1.5 kV range and used to provide battery-based backup power for lights, fans, TV and other household appliances during a power outage. What many are not aware is that inverters are also now available in larger capacities and can provide three-phase battery-based backup power for power capacities as large as even 200 kV. These large inverters can be used not only to provide backup power for lighting and fans but also can support air conditioners, lifts, refrigerators and other critical loads in application ranging from retail shops, restaurants, hotels, hospitals, industries, telecom to commercial office space and even residential buildings

Ideal replacement for DG sets

DG sets today are still used as the preferred power

backup source for many applications because of lack of awareness about clean power backup alternatives like large inverters. Large inverters or "off-line uninterruptible power supplies" manufactured by Consul can provide reliable power backup solution for power outages, ranging from minutes to several hours.

DG sets are highly polluting due to their emissions and noise while large inverters are a green solution and works without any noise or exhausts. Consumers can avail a problem-free power backup solution by opting for a large capacity inverter over a DG set which is prone to regular breakdown and failures due to mechanical nature of the product compared to the reliable power electronics in a large inverter. While the capital investment for a large inverter is slightly higher than a DG set, the running cost is much lower unlike recurring high diesel fuel and maintenance costs in a DG set. This means that the total cost of ownership of a large inverter is much lower than a genset. Instead of buying a DG set, consumers can buy an inverter and make a cost-effective investment.

Benefits of large inverters

There are many applications for large inverters. Here are some of the applications protected by Consul's large inverters:

- Consul has pioneered and supplied power backup system for lifts and escalators called ELOS (Emergency Lift Operating System) which are specifically designed to provide backup power for the lift lights and lift motors. ELOS is used to ensure uninterrupted operation of lifts even when there is a power outage. This is an extremely cost-effective option for lifts in residential buildings, high-rise commercial and office complexes compared to



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a DG set. The lift consumes power only when it is moving or underused, but a DG set consumes diesel even when the lift is not in use. A large inverter on the other hand uses power from the battery only when the lift is in motion and hence is much more cost-effective. Furthermore, the ELOS provides backup power almost instantaneously during a power outage compared to a DG sets which can take seconds to several minutes to turn on and can cause great anxiety and fear to people trapped in a lift during a power outage. ELOS from Consul is already powering more than 5,000 lifts across the country.

- Large inverters are an excellent option to ensure lighting in retail stores, malls, hospitals, buildings, office spaces, industries remain on even during a power outage to ensure there is no panic or safety issue. Even large buildings with lighting loads running into hundreds of kilowatts can be backed up by large inverters which will ensure uninterrupted lighting in power outage. These inverters can be used along with DG sets to bridge the time between a power outage and a DG set coming on or as a cost-effective alternative to DG sets.
- The large inverters supplied by Consul have also started replacing DG sets in many retail shops, bank branches and restaurants where there is no proper space available for a DG set, or the noise and exhausts can turn away customers. Apart from lighting, these large inverters

can provide backup power to other loads like air conditioners, computers, and UPS. The large inverter also eliminates the challenges involved with DG sets like ensuring adequate fuel supply on a daily basis, concerns about fire hazards due to fuel storage, and pilferage concerns of diesel from a DG set in locations without adequate security.

Financial performance and achievement in 2012

Consul is one of the leading Indian manufacturers and suppliers of full range of power conditioning and power backup products, services and solutions. Consul solutions and products are backed with more than three decades of field experience in developing customised power products that meet the exacting standards of clients in supporting critical, sensitive equipment in various industrial and commercial applications. Consul also assists customers optimise its power protection and energy consumption through tailor-made products and solutions.

The company currently operates two modern manufacturing facilities in Chennai which are ISO 9000 and 14001 certified and where it manufactures voltage stabilisers and UPS products. It was recently ranked as the No 2 Power Electric Company (PEC) in India for 2012 by Softdisk. Consul has consistently been ranked among the top 5 PEC companies for the last 3 years.

Consul has an enviable base of more than 2,50,000 successful installations across India, Middle East, Africa and South Asia. It has one of the largest service networks in India represented by 250 trained service engineers in seven regional offices and 75 branch offices. It operates a central 1-800 call centre for customers support and also for providing remote monitoring services for Consul products enabled with remote monitoring facility.

Measures to perform well

Consul has focused on supplying reliable products developed for Indian power and site conditions. It also believes in developing tailored solutions for applications to ensure the optimal power backup and power conditioning solution. This along with an extensive service network has helped the company differentiate its capabilities.

Growth-maintaining initiatives

Consul sees large opportunities for its entire power backup and power conditioning products in India, given the power supply issues faced by business and consumers across the country both in quality of delivered power and availability of power. Demand for electricity will only continue to grow as India's per-capita electricity consumption was about 600 kWh in 2009, leaving it far below the world average of 2,700 kWh. Last year, its specific focus areas include promotion of alternate power backup options like large inverters (battery backup systems) and off-grid/roof top solar power packs as an alternate to DG sets which are noisy and not eco-friendly. Today clean energy sources like photo voltaic based solar power packs and battery-based backup systems are able to provide backup power at a lower cost than DG sets. Consul is also constantly working on enhancing its product range and working on several new power backup products which will be launched in coming year.

Manufacturing in India's GDP

In a developing country like India, there will be increasing demand for products in all sectors, leading to a large growth in domestic consumption. It is needed to ensure that this domestic consumption can be primarily serviced by domestic manufacturers as this will provide more employment opportunities and drive economic prosperity. The government's role in encouraging domestic manufacturing will be critical and will ensure that manufacturing becomes a much larger part of India's GDP. ■



Manufacturing outlet of Consul Consolidated