Consul Neowatt : Global in merit, Indian in spirit

Consul Neowatt Power Solutions is a formidable name in power conditioning and power back-up products, services and solutions. Maintaining its leadership position for over three decades, this premier power electronics company, adjudged as the fastest growing UPS entity in India, is spreading its wings with an aspiration to become the Indian multinational in its chosen field. Power quality problems including blackout & brownout and voltage sag & swell and harmonics are indeed a menace causing incalculable damage to quality and productivity in the industry. We have no control over the grid power coming into the utility meter. However, Consul Neowatt has a panacea to offer - a proven technology solution to keep the plant and machinery humming uninterruptedly, providing clean power at the customer's end, finds out Mr. P.K. Balasubbramaniian in an interview with Mr. Sriram Ramakrishnan, Managing Director & CEO, Consul Neowatt Power Solutions. Excerpts:

Mr. Sriram Ramakrishnan, Managing Director & CEO, Consul Neowatt Power Solutions Pvt. Ltd.

Sriram is a global leader and technocrat. He is currently the MD & CEO of Consul Neowatt Power Solutions, which under his leadership, is today the fastest growing UPS company in India and the No.1 Indian Power Electronics Company. Prior to Consul Neowatt, Sriram was heading the Engineering Valves business unit of Sanmar Engineering which included management of two joint ventures and setting up a greenfield business unit.

He started his career at GE's Corporate R&D Center in New York and has to his credit multiple US / European patents in the field of Power Electronics. He was then part of the founding team of GE's UPS business – GE Digital Energy.

Subsequently at Powerware /Eaton, he was responsible for launching the first transformerless UPS – 9390 and was the Global head for Data Center Solutions business unit with operations in US, Canada, Mexico and UK where he launched Eaton's modular UPS – Blade UPS (used extensively in Google's datacenters) and ePDU (Intelligent PDUs for data center market).

Q. What are the power quality issues normally faced and how can we address them?

The power coming from the grid is not at all clean. There are several quality issues such as blackout, brownout, voltage sags or dips and voltage swells. Other types of power quality problems are harmonics caused by both voltage distortion and by harmonic current drawn by non-linear loads like Variable Frequency Drives (VFD) at the user end. Problems caused by harmonics include equipment overheating, motor failures, capacitor failure, inaccurate power metering and soon.The solution is to ensure uninterrupted power supply at the customer side of the utility meter even when there are power quality issues. That's where solutions providers like us come in. We are like an insurance agent ensuring uninterrupted power for business and industry even when the mains power is not healthy and has poor power quality.

For addressing voltage sag & swell, we have Servo Controlled Voltage Stabilizer, 1 KVA to 3500 KVA. For blackout or brownout, the solution is UPS 1 KVA to 800KVA. One can also connect up to eight UPS units in parallel to obtain a power backup of 6,400 KVA. For harmonics, the panacea is Active Harmonic Filters. The harmonic current required for your non-linear loads like VFDs will be supplied by Harmonic Filters so that

only clean power will be drawn from the grid.

Q. You claim to be the No.1 Indian power electronics company. How do you substantiate it, and what's your niche?

Well, we are India's premier power electronics company. In fact, we are the only power electronics company in India with integrated capabilities including R&D, Manufacturing, Sales & Service. While the history of the company goes back over three decades, over the last five years we have introduced many new state-of-the-art products and solutions which has helped us take market share away from the MNCs. Today Consul Neowatt is a viable alternative to MNCs for customers looking for cost-effective, reliable, energy efficient and innovative power electronic solutions.

UPS is our largest product line and we are No.4 in the country behind 3 MNCs. But we are the fastest growing UPS company in India and the No.1 Indian UPS company. In power conditioning products like voltage stabilizers and Active Harmonic Filters, we are the market leader and have the No.1 market share in India. SoftDisk (SD) has adjudged us as the No.1 power electronics company for the last three years, the latest being the 'SD Awards 2017'. We also manufacture low voltage isolation transformers used in conjunction with our servo stabilizers for power protection of equipment used in metal cutting and metal forming industries. Other innovative products we offer include Solar Inverters with energy storage capabilities and static transfer switches which ensure uninterrupted power for critical loads when supplied from two power sources.

Q. What's your range of manufacture?

As I said, our range of manufacture comprises power conditioning products such as Servo Controlled Voltage Stabilizers - both air cooled and oil cooled, Active Harmonic Filters, Isolation Transformers; Power Backup Systems like Single Phase & Three-Phase UPS - IGBT based Rectifier and Inverter both transformerless and with built-in isolation transformer, high efficiency Offline UPS; Static Transfer Switches; Solar Off Grid and Hybrid Inverters and customized power electronic solutions.

Innovative Power Conditioning & Power Backup Solutions for clean and uninterrupted power supply

Q. What's the UPS market scenario in India and where do you figure in?

The UPS market in India is of the order of Rs.3600 crores. Our market share is about 7%. While the UPS market growth was muted for several years due to slowdown in capital investments, we are seeing a revival from last year, post GST. This coupled with increasing spend by the government for infrastructure projects is promising a good growth for UPS industry this year also. Last year we achieved a turnover of Rs.355 crores and this year we will achieve Rs.500 crores. In this, the share of UPS is about 70%. For the last five years we have been growing at the compounded annual rate of 28% year on year and by far, we are the fastest growing UPS company in India. Our Flagship Falcon three phase UPS family of products has been growing at a phenomenal rate of over 50% per year over the last three years. In the past, customers for three phase UPS systems for critical applications were dependent on only MNC UPS companies. Today the Falcon UPS series along with our tailored and customer- friendly pre-sales and post-sales service support has provided a clear alternative to customers. We are displacing MNC UPS companies and have become the preferred choice of many of the Top 500 companies in India across industry verticals.

Q. Solar inverter is something novel to India. Your comments?

Yes, our Sunbird Solar Inverters are unique and incorporate 'USE' technology - USE stands for ability to Use, Store and Export Solar energy. We can use solar energy to provide power to connected equipment, store energy in the battery and also export excess solar power to the grid. We are one of the very few companies in the world who make Solar Inverters with USE technology. We have supplied Sunbird Solar Inverters ranging from 1 KW to 400 KW and are the market leaders for

At the root of Consul Neowatt's innovations is its full-fledged R & D facility approved by DSIR

three phase off-grid and hybrid solar inverters with energy storage. Over the last few years we have supplied close to 50MW of our Sunbird Solar inverters for a variety of applications deployed in large projects that include homes under Remote Village Electrification as part of the Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) Project, Petrol Retail outlets of major retailers like IOCL, BPCL, HPCL, and Reliance, major Educational Institutions like the IITs, Sports complexes, and Government Establishments – Defence, Police and Railways.

One of the unique projects we did was for the Sabzi Mandi project initiated by the Government of Uttar Pradesh. This is a full-fledged market facility for farmers well equipped with cold storage facilities, shops, drainage systems, and warehouses. The project covers 16 locations in the state and is fitted with multiple units of 150kw to 400kW Sunbird solar inverters with solar panels and batteries to be self-sufficient for uninterrupted power supply. The solar power in these sites support a mixed load of pump motors, lighting, cool storage fans and other infrastructural needs of the Mandi's totally eliminating the need for DG power and using the Mains power only as a backup if generated solar power is not sufficient.

Q. With increasing investment in Solar Power and power generation improving, what do you see as the future for UPS industry in India?

I see a bright future for the UPS industry. The growth in Indian economy with increase in automation and computerization across industries coupled with the focus of the government on creating smart cities and smart infrastructure will be a big growth driver for the UPS industry. While power generation is increasing and the Power Supply Demand gap is narrowing, the quality of delivered power is still an issue due to our aging transmission & distribution network. This will mean every critical application that needs uninterrupted operations will need an UPS solution.

With increasing power generation, the duration of power cuts should decrease pan-India and may not be more than 1-2 hours per day especially in Metros and Tier-1 cities. This will provide an opportunity to replace polluting Gensets with UPS, Inverters and Solar Inverters with energy storage to provide uninterrupted power during short duration power cuts.

Today in many applications, UPS and inverters have started replacing DG Gensets. Lift backup is a major application. We have deployed UPS with battery back-up for lifts in around 5000 buildings in Maharashtra as eco-friendly alternative to DG sets. In New Delhi, there is a total ban on DG Sets due to the pollution concerns. This presents an opportunity to replace DG Sets with Energy Storage devices. If you remember, 20 years ago people were using kerosene Gensets for power back-up during power cuts in residential homes. Today homes are using inverters with

Consul Neowatt's manufacturing facilities in Chennai and Pune

battery storage and also Solar based solutions. What I am driving at is that in another 5-10 years, DG sets will become extinct except for locations where long duration power cuts are expected. They will be replaced with UPS with energy storage or solar inverters with energy storage for commercial and even industrial applications.

Another peculiar problem that is looming ahead is that with increasing solar power generation connected to the grid, the peak power generation will be from 11 am-3 pm. But unfortunately the maximum demand on the grid in India is between 6 to 10pm. So Electricity boards will be forced to charge higher tariff in the evening hours to encourage customers to shed their loads or introduce a restriction - only 30% of the allocated maximum demand power can be drawn during peak demand hours of 6-10pm. When you have this restriction, you are forced to use DG sets incurring a unit cost of Rs.20/-. As against this, when you use stored solar energy or electrical energy (during non-peak hours), the cost comes to Rs.12-15 per unit. Thus there is a substantial saving. Added to this, you are using clean energy. No noise, no pollution, no storing of diesel, no fuel pilferage! For using a DG set, you need to take 5 permits. For solar energy storage with battery or UPS with battery, no permission is required.

Consul Neowatt's Head Office in Chennai

Q. Service is crucial in your line of business. What's your service set-up? And response time?

Service is a big differentiator for us in how we support customers. We have invested extensively in leveraging technology for our service operations. Our complete installed base of over 1,00,000 units are maintained in SAP. This allows us to quickly and efficiently respond to customer support calls. In our segment, we are the only company with a pan-India service network. We have 350 plus company trained service engineers in 85 locations across the length and breadth of the country. We operate our customer call center 365 days a year with four language support. We can receive service request 24 x 7. Service request is also received through mobile app.

We generate real time e-service report through a Service Mobile App which is used by all our Service Engineers which gives complete details of the attended service call with images of customers, products, and details of service attended. Currently our response time is 4-6 hours in metros and 24-36 hours in tier-2 and tier- 3 cities.

Q. Could you throw some light on your infrastructure and wherewithal?

We have two manufacturing plants - one in Chennai and the other in Pune. The factories are ISO 9001, ISO 14001 and OHAS 18001 certified. We also have 26 branch offices throughout the country. We have a workforce of 800 employees on pay roll. We are a 35-year old company. We started off with servo stabilizers, but today Consul Neowatt is known as Global Indian UPS company - the fastest growing UPS company rather.

Q. Could you brief us on your R&D set up, efforts and achievements?

In the power conditioning and UPS segment, we are perhaps the only company with integrated functions such as R & D, manufacture, sales & service. At the root of our innovations is our full-fledged R & D facility approved by the Dept. of Scientific and Industrial Research (DSIR). We have 30 R & D engineers manning the facility - the country's leading experts in power electronics. When we talk of R & D and innovations, I must underline the fact that many of India's firsts in Power Electronics were developed by my team and around 70% of our revenue comes from products launched in the last four years.

Q. Which are the target and growth markets for you?

We have a strong presence in engineering industry - both light & heavy, auto ancillaries and process industries like plastics, food & beverages, pharmaceuticals, chemicals, cement and also in healthcare including hospitals & medical OEMs. In the days to come, our focus will also be more on infrastructure like airports, metros, smart cities,

power plants, etc. We are qualified to provide our products and solutions to nuclear power plants. IT & ITES and data centers are a big segment and is our focus now. Traditionally in these segments, customers prefer MNC brands, but now we have started winning here also.

Q. Is export a thrust area for you?

As of now the contribution of exports to our turnover is hardly 2-3%. Currently we are exporting to countries like Sri Lanka, Nepal, Africa and Middle East. Our products are designed to IEC and other international standards. We have plans to step up our exports to 8% of our turnover. Our target markets are South East Asia, Middle East and Africa. And our aspiration is to become an Indian multinational.

Q. What's your vision for Consul Neowatt?

Our vision is to become India's premier provider of power backup & power conditioning products, services and solutions and to be the preferred power partner for our customers. Towards this end, our mission is to add value to our customers with cost-effective, innovative, energy efficient and reliable power backup and power conditioning products and solutions.

Q. What's your roadmap for achieving this goal?

We know the way ahead and have begun the journey. My endeavour is always to build up and foster a strong team. We have an excellent team with vast experience in different companies in India and abroad.

My philosophy is to provide our employees with opportunities to showcase their skill and talent. We have a performance culture in the organization. And performance is always rewarded with more opportunities to grow and have career progression. Our 800 dedicated employees and their families are our major asset and enabler to achieve our vision.

Q. What are your comments on the industrial climate and what are the challenges ahead for you?

Without mincing words I would say that the environment is not at all conducive to growth. Though opportunities are galore, many a time we have to swim against the tide. If you take China for instance, the Government support to the industry is phenomenal. Infrastructure is available, low cost capital is available, investment on R & D is encouraged. But here in India, the cost of capital is high, borrowing rates are sky high, working capital is scarce and costly, there is no incentive to grow fast! To give you a simple example of challenges we have to deal with, our factory in Perungudi , Chennai in one of India's earliest Electrical & Electronics Industrial Estates was the erstwhile GEC Alstom factory. Queen Elizabeth had come to visit this plant some 20 years ago. A special approach road was created then for the VVIP due to the poor road conditions. Today, the access road conditions continue to be pathetic for want of maintenance!

Q. What are your future thrusts?

Our future thrust will be on consolidating our UPS business to become No.1 in India.

We are also working on several new products around Energy storage and Solar Energy storage where we want to stake a leadership position. Another area of focus is to tap the expected large growth of Electric vehicles (EV) in 2-wheeler, 3-wheeler, cars and buses. We want to be future ready and provide electric chargers for these vehicles. That's the future.

Q. Where will you be five years hence?

Five years hence we would be the largest company in power backup and power conditioning in India. And in terms of turnover, we must cross Rs.1000 crores. ■

CONSUL NEOWATT Global Indian UPS