



Gloabtel Convergence, headquartered in Mumbai, provides a wide range of services in the field of energy audit and management. It has a legacy of introducing innovative and pioneering products like the country's first DLMS-equipped single-phase energy meter, battery chargers with automatic load transfer, two-way AMR, etc. **Tushar Morakhia** discusses the various products and services of his company and explains how they can indeed form the basis for India's Smart Grid pursuits.

Energy management is more than just load management

— Tushar Morakhia,
CEO, Gloabtel Convergence Ltd

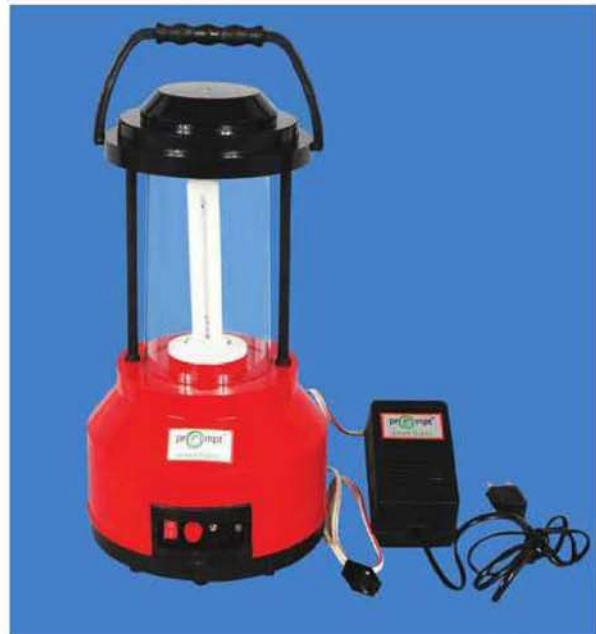
To start with, please summarize in brief the various services offered by Gloabtel in the field of energy management.

Gloabtel has wide range of products and services for energy management. We provide energy and thermal audit to energy analysis tools. We also have products like LED lights and Energy Saver panels and APFC panels. Energy audit and thermal audit helps to identify the areas savings and to chalk out the overall energy saving system for a company. The analysis tool, Energy Manager System is online monitoring and reporting system. It provides details on consumption pattern, power, harmonic and other vital parameters at various consumption points in the company.

LED lights are used to replace existing conventional tube lights, T5, T8, street lights, down-lighters and other such lights. The energy saving panels can provide savings from 10 per cent to 30 per cent depending on load and usage. The panel works on Mag-flux principal and the field results are excellent. Recently we also launched fanless PC, EBOX, can be useful for thin client, data loggers, banks, data entry, remote display digital signage, POS and many more. EBOX can work on 12V battery and it comes in very small form factor thereby saving space and energy. The power consumption of EBOX is just 10W while normal PC consumes 60W.

We understand that Gloabtel has introduced an innovative Battery Monitoring System. Tell us more.

Battery Monitoring, or "BattMon" as we call it, is a unique system for continuous monitoring of battery bank. It monitors



individual cell voltage, temperature and charge/discharge current. It provides extensive data of battery voltage and current for trending the battery voltage over period. The user can easily pinpoint the faulty battery and can take corrective measures. Currently battery bank is charged and discharged



using capacitors which results in energy wastage. BattMon allows user to automatically transfer load on batteries at predetermined time. This helps to actually use the charged batteries and also reduce your power bill. The user can set voltage limit or time limit when load is again transferred back to mains supply. Besides there is also option to get SMS for alerts or get update through an SMS.

Gloabtel's Energy Manager Solution has been a very successful product for over a decade now. Tell us more.

Yes, Energy Manager Solution has become very versatile and it is now also integrated with digital I/Os for controlling or for



activating hooter. The system is already hardware independent, which means that the user can choose his own make of meters. Gloabtel is the first company to provide such flexibility, and that too way back in 2001. Currently it is integrated with more than 20 different brands of meters available in Indian market and we provide free integration with the system in case of any new meters. It is also now working on Ethernet and Linux based data loggers. The data logger has almost unlimited storage and can store and transmit data at specified interval. We will be adding a web-based module for data loggers so that user can view the data from anywhere in the world.



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Please tell us the relevance of Gloabtel's AMR and Billing solutions to power distribution utilities.

We are the pioneers of two-way AMR. AMR is such that it can automatically send data at predefined interval or on occurrence of certain conditions such as tamper events detected by meter or any user specified conditions. The billing parameters are sent automatically every month based on user settings thereby making bill generation quicker and ensuring better cash flow. The user can also collect data as and when required without waiting for AMR to send it across. It also comes with excellent analysis and reporting tool which is very useful for any distribution company, be it state utility or a private distribution company.

The government has been trying to introduce several initiatives in the field of energy management and efficiency (R-APDRP (Part-A), BEE certification, etc). How has been the success so far, in your view?

R-APDRP is excellent scheme for providing power and energy conservation. It will take time till we realize the fruit of these but it has got tremendous response. In fact, the Central government has also come up with the second phase of R-APDRP which we think will definitely take the Indian power sector to a different level.

BEE has undertaken lot of initiatives. Earlier we used to see only consumer electronics like air-conditioners, washing machines with star markings. Now you also get transformers with BEE ratings. Even buildings are nowadays rated for their

energy efficiency. Even architectures and developers are promoting green buildings. This shows the high success of such initiatives. However there is still a long way to go. The consumers are still not forward looking and still buy low-star rating products without realizing their impact on overall electrical system and environment. Also consumers need to be educated on minimizing the waste and optimizing the use of power at their individual end then these schemes will see more success.

Tell us about your energy audit services and your major clients. Given that energy audit can contribute towards energy conservation, do you think that it should be made mandatory?

As per CEA, energy audit is mandatory once in two years for manufacturing units depending upon their load. Energy audit helps you to identify your wastage and clean up your unaccounted losses. It helps a company to prepare its energy conservation plan and also check whether the plan has achieved the desired goals of savings or not. It also helps to select optimal motors, capacitor banks etc. it is a tool to check whether or not the house is in order. Gloabtel has many clients that are involved in manufacturing activities like chemicals, pharmaceuticals, textiles, automobiles, paper etc and also we are now working with commercial users.

We understand that several services that Gloabtel offers forms the basis of the future Smart Grid. What is your view and approach?

Yes, most of our products are part and parcel of Smart Grid. We have system for monitoring right from substation up to the end-user. That is to say from substation monitoring up to tariff meters. The various systems can be installed at various distribution points and data can be sent to various locations. Our data loggers, which I mentioned earlier, are smart enough to work with any field device and not just meters. However, we have some teething issues related to standards and hence the Smart Grid has not picked up in India. We are working as OEM suppliers for Smart Grid. For consumer-side monitoring, Gloabtel has entered in to JV with Elektromed Turkey for manufacturing of tariff meters in India.

Tell us about your R&D setup and discuss your company's philosophy of constantly fine-tuning and upgrading its IT-related services.

All our products are result of extensive R&D and what we are today is because of our R&D activities. We consciously keep investing in R&D and that is the reason we have so many products in our stable. We have our own team to meet the unique requirements of each individual client and that too in lowest possible timeframe. For instance, our single-phase meters are the first to be equipped with DLMS and tamper conditions.

Please discuss in brief your company's LED lighting business. How do you see the road ahead for LED lighting in India?

We are currently targeting industrial and commercial segments only. We are not in the residential segment as yet. There are many manufacturers of LED lights but with ever




increasing awareness for saving, demand is also high. We expect that the most new commercial buildings will now opt for LED lights and manufacturing units are also steadily moving towards it. If economy improves, then we see huge surge in demand for LED lights from manufacturing units.

Gloabtel is in a strategic area of energy management, energy conservation, demand-side management—all of which are high-priority areas for India. Given this strategic fit how do you see the road ahead for Gloabtel?

In India, most companies are content with managing their load or demand but do not opt for overall energy management. A manufacturer wants to maintain its peak demand within the

limit and maintain power factor. He is not interested in companywide energy saving and management.

We are educating our customers and informing them the benefits of our audit services, APFC, harmonic and energy saver panels, LED lights, monitoring various load points and generating load analysis and consumption pattern etc. are beneficial for him and can save a lot financially or in terms of improved electrical system. Further these systems also provide depreciation of up to 80 per cent under Section 80 of the Income Tax Act. The various initiatives by the Central government and the directives to various heavy industries to reduce their energy consumption within stipulated time are all positive indicators for Gloabtel. We see lot of growth opportunity for us and for the industry as a whole. 

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