



# Savings Strategies

## Operator and infrastructure provider perspectives

Operators often have to face a number of challenges involving energy costs and the equipment they have invested in. Other challenges pertaining to the efficiency of the equipment deployed, the security of those assets as well as the implementation and proper use of energy devices and fuels also exist.

The logistical challenge involved in moving from urban to rural markets is another important area. So is the unavailability of trained manpower and skilled resources in the country's rural hinterland.

Besides, the telecom industry has contributed to carbon emissions of around 5.4 million tonnes (mt). This needs to be reduced drastically and the operators must pull out all the stops towards this end.

We need to address all the above factors to leverage the opportunities this sector offers. The question we must ask ourselves is, are we doing all that we can to tackle these challenges?

Identifying areas where one can reduce costs is of utmost importance, as this is a major subject of contention. The need of the hour perhaps is to confidently assert that reducing costs is possible through an

outcome-oriented approach as opposed to a product-centric one.

Without speculating too much on what the government should do there are a number of measures that can be taken by the telecom industry itself. As a mature industry, we could utilise green and energy efficient solutions.

The idea is to identify the products and solutions that would best serve the industry's requirement. It is also important to assess whether the product would be able to function with other system components, whether it would function remotely, whether the user would be able to control its performance from a distance, etc.

The need of the hour is to engineer a solution that would cater to specific customer needs irrespective of whether their network is in Bihar or Mumbai. The ownership and accountability levels, ranging from key performance indicators to service level agreements, are vital.

Once these are established, one can choose from a range of business models. For instance, the fixed energy model, where the cost of energy is frozen, based on the conditions prevalent at the time for

the location and for the density of the assets that are consuming energy.

Another model is the capex ingredient model, where the operator identifies an opportunity to create a business model that satisfies his desire for a quick reduction in opex while he simultaneously incurs some expenditure on improving the processes involved. ▲

**Sharat Chandra, President and Chief Operating Officer, Strategy and New Technologies, GTL**

There is little doubt that the Indian telecom sector has witnessed rapid growth. However, a number of issues and challenges remain. For instance, while the rural telecom subscriber base is expected to constitute 40 per cent (100 million subscribers) of the next 250 million wireless users to be added during the next five years, setting up infrastructure, obtaining reliable supply of electricity and ensuring security in these regions are issues that need to be dealt with.

For operators, there are other challenges as well. For instance, service providers require 13,140 GWh of power

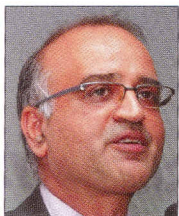






# Curbing Costs

Key strategies and solutions



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Energy savings at a cell site can be achieved through heat management, which does not necessarily refer to air conditioning. Typically, while the battery of a base transceiver station (BTS) is temperature sensitive, the BTS itself is not, and can, therefore, function quite well in outdoor mode.

Using alternative sources of energy such as biogas could help to power a number of telecom towers. Operators should, therefore, attempt to harness such inextinguishable sources even when conventional energy sources are available. The idea is to use the most cost-effective energy source available. Using diesel generators should be the last resort.

Operators typically follow a five-point agenda at their cell site or tower – they attend to faults via remote diagnostics, assess spares and field despatch systems; change system configurations and settings; monitor the system's health and usage; manage consumption, manpower and outages; and reduce their carbon footprint and opex.

It is important to remember that the energy needs of various equipment change throughout the day. Therefore, to best conserve energy, one must use the most viable source of power for the most critical time.

For saving energy at the telecom tower, the operator must deploy an engineered energy solution and not just individual products, and analyse the cumulative effect of energy saving equipment on each other as well as on active and passive loads.

An energy saving solution must not only reduce consumption, but should also be scalable and support growth while ensuring savings. It must provide an energy scorecard and facilitate fault detection diagnosis and remote performance management.

Keeping these requirements in mind, three strategies can be adopted – in-house energy management, a fully outsourced model and an outsourced consultancy-based model. The first model allows the company to evaluate solutions and products in its own laboratory. A fully outsourced model helps to share risks while the third model provides the operator with external recommendations.

All in all, a powerful model comprising a combined engineering output, smarter operations and maintenance processes,

