

Indus Towers

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As per the Telecom Regulatory Authority of India (TRAI) Consultation paper on Green Telecommunication published in March 2011, the telecommunication industry in India uses about 2 billion litres of diesel fuel worth US\$1.15 billion per annum. The diesel generators are of 10-15 kVA capacity and consume 2 litres of diesel per hour and produce 2.63 kg of CO₂ per litre. The total emission is approximately 5 million tonnes of CO₂.

This consumption will only increase as more new operators roll out their services as well as existing operators expanding their network further and launching 3G/BWA services. Currently, 40% of the total telecom power requirements are met by grid electricity and 60% by diesel generators. In India, there are 330,000 telecom towers which is expected to reach 550,000 towers by 2015, with a focus on rural expansion. As future growth is more focused on the rural sector, this will in turn increase the consumption of diesel for powering telecom towers due to sub-optimal grid supply.

Indus Towers Ltd: Transcending the Horizon in Passive Infrastructure

“We transform lives by enabling communication” – these simple and yet powerful words drive Indus Towers Ltd. towards excellence in service delivery.

Founded in 2007, Indus Towers is a joint venture between the three leading telecom companies of India: Bharti Infratel Ltd, Vodafone Essar Ltd, and Aditya Birla Telecom Ltd. Indus Towers Limited is an independently managed company offering passive infrastructure services to all telecom operators and other wireless services providers. With a portfolio of more than 110,000 towers, Indus is the largest telecom tower company in the world. It has a presence in the 16 major telecom circles of India and headquartered in the National Capital Region, Delhi.

Indus Towers’ objective is to provide shared telecom infrastructure to telecom operators on a non-discriminatory basis. The company’s commitment towards continuous innovation enhances operational efficiencies and results in substantial cost savings for its customers.

Indus Towers recently achieved 200,000 tenancies which is a first in the telecom tower industry.

With its vision of transforming lives by enabling communication, the company has contributed significantly to enable wider access, offer affordable services, and propel wireless telecommunication sector towards achieving Government of India’s National Teledensity Goals.

Brand Differentiators:

With a strong footprint across India and offering scale benefits to its customers, Indus has the following key differentiators with respect to its competitors

- Operational excellence
- Largest network
- Speed-to-market
- Lower energy costs coupled with its Green Commitment

Indus Towers has earned the distinction of being a preferred choice for customers and is set to continue to enable the next generation communications.

Environment: Key element of Indus Values Edifice

Indus Towers has recently finalised its value system – ExCITE (Excellence, Customer, Integrity, Teamwork and Environment).

By design, the environment has become the DNA this organisation. Indus Management has clearly expressed its Green Commitment. Unlike many other organisations, Indus Towers is extremely committed to its values framework. Indus Towers believe that, as an industry leader, they owe it to the society to take the right actions today to ensure future generations a safe environment.

“Our corporate color-Green reflects our commitment to be socially responsible and deliver our services in an environmentally friendly manner.”

Green Telecom in Indus Towers

As of now, Indus Towers has one of the largest portfolios of green sites amongst all telecom/tower companies. Indus Towers’ impetus to reduce GHG emission and usage of renewable energy source to power telecom towers eluded to **CAP (Carbon Abatement Program)** with a time frame of 3-4 years.

Indus Towers’ Green Value Chain has many facets to drive the CAP. It can be classified broadly into 4 parts:

- Green telecom equipment
- Green design of passive telecom sites
- Enhanced site sharing
- Power generation through green sources

Figure 8. Indus Values Edifice

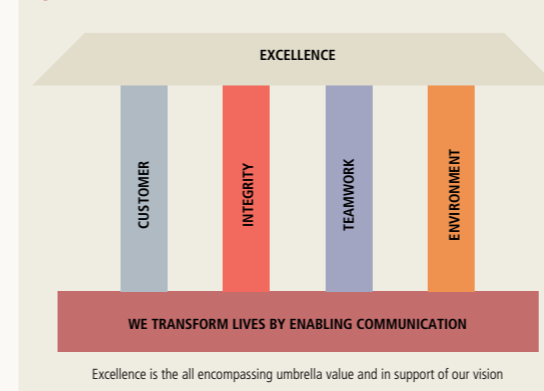
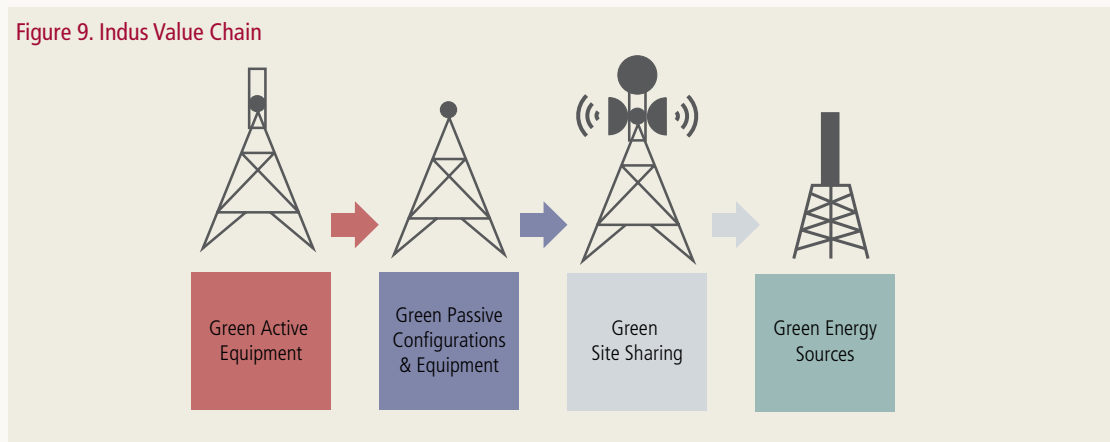


Figure 9. Indus Value Chain



Indus Value Chain

Generally, Green energy is synonymous with green energy sources, however, Indus Towers is working with a comprehensive approach by focusing equally on all the possible aspects. The fragments of the value chain are briefly described below:

- **Green Active Equipment:** There has been a significant reduction in power consumption of active equipment from about 2.5kW to below 1kW per BTS. Also the newer BTS's are capable of working at much higher temperatures than previous models. While this area is primarily driven by our esteemed customers, Indus Towers facilitates such initiatives for its customer
- **Green Passive Configurations & Equipment:** Indus Towers is investing to ensure that the passive infrastructure equipment's are state of the art with the highest possible energy efficiency. We are also working on maximising the build-up of outdoor cell sites which eliminates the need for air conditioners on sites; hence reducing the energy cost by 20-25%. We are also implementing retro fitment solutions like direct current diesel generators (DC-DG), free cooling unit, soft start inverter, and fuel catalyst to reduce energy cost.
- **Green Sharing:** The sharing of sites by multiple operators optimised the energy costs significantly. Broadly speaking 2-3 operators sharing, brings down the energy cost by 20-30% for the respective operator. Indus Towers believes that its portfolio with higher tenancies helps the environment significantly.

- **Green Energy Sources:** Indus is focused to bring renewable energy sources like solar, wind, fuel cells, natural gas, biomass and geothermal to power telecom towers. It has garnered a significant progress in implementing of Solar Hybrid solutions. A project for the deployment of 2500 sites has been initiated; of which more than 500 sites have already been deployed.

Indus has also initiated trials on PNG (Pipe Natural Gas) and LPG (Liquefied Petroleum Gas) based generators to substitute diesel as an energy source.

Indus being the industry leader is steadily progressing in promoting green power solutions. We believe that increase in scale shall result in reduction in prices and hence facilitate exponential growth.

Green Telecom: Challenges and the Way Forward

The major financial challenges being faced for powering telecom towers through green sources are the high initial investment and longer Return on Investment (ROI) periods. The technical and operational challenges include nascent technologies for lower load situation in telecom, non-predictable power situation and distributed telecom networks.

In order to sustain Green Telecom, the industry needs to take a holistic approach towards collaboration within industry players and government agencies. Incentives and tax benefits to OEMs and services providers can facilitate affordable green solutions.