

Telecom Infrastructure – Electricity Board Connection & Energy Related Challenges

Today telecom connectivity is an essential service and uninterrupted power 24x7 is a fundamental requirement for operating telecom services. For the telecom network to function the towers need to be energized, this critical aspect is being fulfilled by telecom infrastructure providers, thereby enabling the telecom services.

As per the license condition, a telecom operator needs to maintain a network availability higher than 99.5% of the total time. Assured power 24x7 is, therefore, a prerequisite for any telecom tower site. Energy forms a significant component of telecom tower site operations as the sites are required to be operational 24x7 all through the year.

For the implementation of deliverables enshrined in the National Digital Communication Policy 2018, National Broadband Mission has been launched by the Government of India which aims to achieve “Broadband for All” by 2022. The success of the National Broadband mission would not only depend upon the availability of telecom infrastructure in the rural and far-flung areas but also upon the availability of 24X7 power supply across all the urban/semi-urban/rural locations for powering the telecom installations.

Telecom Infrastructure providers are in the domain of providing passive infrastructure such as telecom towers, dark fiber, duct space and Right of Way to the telecom service providers and provide passive infrastructure on plug and play basis which includes enabling the power solutions for the telecom sector in terms of Grid supply, battery and alternate power sources such as DG set/ renewable etc. in order to enable the wireless communications. The service providers are registered with the Department of Telecom, Ministry of Communications as Infrastructure provider category 1 (IP-1).

There are more than 7 Lakh telecom towers in the country that host almost 23 Lakh BTSs to provide 2G, 3G and 4G services on a PAN India basis and serve about 1.2 billion customers in the country currently.

Current Landscape of Power availability for Telecom Industry

While the availability of Electricity Board (EB) connection for the functioning of telecom sites have improved over the years, there is still a substantial percentage of sites where the availability of 24X7 uninterrupted power is a challenge. This warrants use of DG sets and consumption of precious commodity diesel at the sites, resulting in adverse impact on country's economy, including pollution and the dollar reserves of the Government of India.

Barring a handful of states as shown below, getting even 20 hours of uninterrupted EB supply is an issue, leading to increase in CAPEX and OPEX for the Telecom Infrastructure providers and overall cost of providing services to the citizens of the country.

Challenges of the Telecom Infrastructure Providers

- **Unavailability of 24X7 Electricity Board (EB) Supply**

In absence of availability of 24X7 power supply, telecom infrastructure providers are forced to depend upon alternate energy means like DG sets etc. This leads to increased CAPEX investments and increased OPEX due to higher cost of generation and diesel pilferage etc.

- **Exorbitant connection / last mile and miscellaneous charges**

Some states charge huge amounts as infrastructure charges for providing new connections. Even the charges for the last mile are exorbitant in some states and at times the last mile is not maintained by the DISCOMs.

- **EB tariff levied under Commercial category for telecom sector**

While the telecom tariffs in India are the lowest, the Electricity tariffs are being charged at substantial high rates under the commercial category. In most states the difference between both the category is significant, leading to burden overall telecom sector.

Priority Electricity Connection, EB connection pending issues

New power connections can take anywhere up to 30-60 days, some states link NOC from Municipal Corporation as a pre-requisite for applying a new EB connection.

Billing Challenges, Online Delivery of Bills and payments

The Telecom sector generates huge revenues for the DISCOMs, however the treatment is at par with a normal/residential customer, ideally we should be treated as a corporate customer. Majority of states have no centralized billing, provision of bills through e-mail etc. thereby unnecessarily adding physical collection / downloading of thousands of bills from the portal.

Non-Availability of Smart/Pre-payment Meters, faulty meter replacement

Currently the presence of Smart meter in the country is negligible even in Urban areas. The Electricity (Rights of Consumers) Rules 2020, clearly states that –

No connection shall be given without a meter and such meter shall be the smart pre-payment meter or pre-payment meter.

Since telecom network is present at the site, functioning of a smart meter is very much possible.

- **Issues related to Open Access**

Power purchased through open access policy is currently a very costly affair and non-viable option. Open access allows large users of power — typically having a connected load of 1 megawatt (MW) and above, to buy cheaper power from the open market (Green Open Access Rules 2022, notified on 6th June, 2022, Green open access limit has been reduced to 100 KW).

Green Energy Initiatives

While as a nation building and socially responsibility Industry, the telecom infrastructure industry is in sync with Government of India's green energy initiative and fully support the same. We have been working with the Government on use of alternative energy sources like Solar, PNG, Diesel blending etc. Need of the hour is surely to move to greener alternatives of energy source, **however, the onus of producing Green energy is, and should, lie with the Energy companies.**

Recent important developments, Support from Government

- **Electricity (Rights of Consumers) Rules, 2020** on December 21, 2020, by the Ministry of Power. Giving right of consumers to have minimum standards of service for the supply of electricity from DISCOMs and the duty of every DISCOM to supply electricity on request made by an owner or occupier of any premises.
- **Amendment rules to the Electricity (Rights of Consumers) Rules, 2020**, 20th April 2022 Gazette notification of Ministry of Power, amendment rules to the Electricity (Rights of Consumers) Rules, 2020. Distribution licensee to ensure 24X7 uninterrupted power supply to all the consumers cities with a population of 100,000 and above.
- **Green Open Access Rules, 2022** have been notified on 06.06.22. These rules are notified for promoting generation, purchase and consumption of green energy. Rules enable simplified procedure for the open access to green power
- **Recommendations of the Working Group to the FOIR on “Cross Sector Collaborative Regulation between Telecom Regulators and Electricity Regulators”**. A well thought through and effective cross-sector partnership between Telecom and Power sector, benefitting both sectors through increased scales, leveraging shared resources, improve reach and amplify overall developmental impact.