


<p>Regulation Cell, Room no. 504, 5th Floor, Bharat Sanchar Bhawan, Janpath, New Delhi - 110001 Tel. : 011 - 23734081-82 e-mail : agmregln@gmail.com</p>	 <p>भारत संचार निगम लिमिटेड (भारत संचार निगम लिमिटेड) BHARAT SANCHAR NIGAM LIMITED (A Govt. of India Enterprise)</p>
--	---

To,

Shri Sanjeev Kumar Sharma,
Advisor (Broadband and Policy Analysis),
Telecom Regulatory Authority of India
(Email: advbbpa@traf.gov.in/ jtadv-bbpa@traf.gov.in)

No. BSNLCO-RGLN/25/2/2022-REGLN dated 11-05-2022

Sub: Comments of BSNL on Consultation Paper on "Use of street furniture for small cell and aerial fiber deployment".

Please find below the comments of BSNL on Consultation Paper on Use of street furniture for small cell and aerial fiber deployment.

Q.1: Is there a requirement for any modification in existing RoW Rules as notified by DoT to accommodate small cell deployment on street furniture? If yes, please provide the changes required.

BSNL Comments: Yes, there is a requirement for modification in existing RoW Rules as notified by DoT to accommodate small cell deployment on street furniture as at present, in RoW Rules 2016 and its further amendments, no specific guidelines exist w.r.t. Small Cells. As installing huge numbers of small cells at the appropriate location in a timely and affordable manner is important, Rules should be modified to ensure that the ROW permissions for small cells are not affected due to tedious application processes, delayed/denied permissions, undue restrictions and arbitrary charges.

Some of the changes proposed are:

- i. RoW Rules, 2016 do not have provision for use of street furniture for deployment of telecom infrastructure. Incorporating use of street furniture for small cells into RoW rules will help harmonize the procedures with different local authorities at state level
- ii. Simplified and streamlined procedures for building/street furniture permits for small cells based on standardized size, installation requirements and radio characteristics.
- iii. An elegant single window of clearance catering to all agencies for each State
- iv. Guidelines to facilitate the acquisition of new sites and greater transparency on available assets such as towers, buildings and other structures.
- v. Granting easy access to existing street furniture such as traffic lights, bus stops, street lamps etc.

- vi. State electricity boards /distribution companies to ease permits for usage of their poles for deployment.
- vii. Implementing uniformity in grant of access to public spaces/ structures for installing small cells across state and the local bodies.
- viii. Reducing permit costs for small cells relative to those for macro cells.
- ix. Establishing norms related to the size and number of small cells deployed on any single street furniture infrastructure.

Q.2: Have the amendments issued in 2021 to RoW rules 2016 been able to take care of the needs of aerial fiber deployment? If not, what further amendments can be suggested? Please provide exact text with justification.

BSNL Comments: Yes, the amendments issued in 2021 to incorporate the provisions related to nominal one-time compensation (one thousand rupees per km) and uniform procedure for establishment of overground telegraph line should take care of the needs of aerial fiber deployment. However the rules to maintain aesthetics of the area should be defined by local authority and the same should be followed by TSPs.

Q.3: What are the suggestions of stakeholders for aligning RoW policies issued by various other Central Government Bodies with existing DoT RoW policy?

BSNL Comments: One centralized online portal should be created on which all relevant departments can provide their permission/ NOC for TSPs request. Request of the TSP should be automatically routed to concerned department and TSP should be able to see the status of its application on this portal. Empowered Appellate Authority may be created at LSA level in DOT to coordinate and resolve the grievances of TSPs.

Q.4: Whether it should be mandated that certain public infrastructure (municipality buildings, post offices, bus, and railway stations, etc.) be earmarked to have dedicated spaces that allow service providers to deploy macro/small cells? If yes, what are the possibilities and under what legal framework this can be done? What should be the terms and conditions of use of such infrastructure? Please provide detailed inputs with justifications.

BSNL Comments: Yes, it should be mandated that certain public infrastructure (municipality buildings, post offices, bus, and railway stations, etc.) be earmarked to have dedicated spaces that allow service providers to deploy macro/small cells. However deployment of small cells on this dedicated site should be shared by all operators. DOT may incorporate the mandate for the same by amending existing RoW Rules 2016.

Q.5: Can some of the street furniture like traffic lights, metro pillars etc be earmarked for mandatory sharing between controlling administrative authority and Telecom Service/Infrastructure providers for deployment of small cells and aerial fiber? Does existing legal framework support such mandating? What should be the terms and conditions of such sharing? Please provide details

BSNL Comments: Yes, some of the street furniture like traffic lights, metro pillars etc be earmarked for mandatory sharing between controlling administrative authority

and TSP/IP for deployment of small cells and aerial fiber. Existing legal framework may not support such mandating. Suitable amendment in this regard may be done in RoW Rule 2016.

1. A common legal framework needs to be fixed all across India which would be applicable on all administrative authorities and Telecom Service/Infrastructure providers with mediator role of DoT.
2. Charges depending on the number/size/weight of eqpt. and per Km in case of fibre may be fixed and should be kept minimum and uniform for PAN India basis for such installations.
3. The states must ensure that the street furniture available with them is readily made available for use as mounting infrastructure for Information & Communication Technology (ICT) services.

Q.6: How can infrastructure mutualization and infrastructure collaboration be ensured to avoid exclusive rights of way? What legal provisions can support mandating these? Provide full details.

BSNL Comments: Online portal should be created for enrolling all the public/private department/organization by entering all of its infra including details of location/height and load bearing structure. All the infra should be given in exclusive numbering. Whenever a TSP raise a request for RoW, permission can be provided in mutual basis. A third party infra provider can be deployed who can organize TSPs on collaborative and build new infra as per requirement. IP vendors should be bound under act to provide access to all TSPs without any discrimination.

Q.7: Should there be permission exemption for deploying certain categories of small cells at all places or all categories of small cells at certain places (Like apartments etc.)? What legal framework will support such exemptions?

BSNL Comments: Yes, permission may be exempted for deploying certain categories of small cells at all public places and the privately owned common areas like commercial places and common area with residential complexes. The legal framework will have to be created to allow TSPs the right to access such places subject to meeting criteria of public safety and installation practices.

Q.8: What should be the criterion/ conditions (like power, height etc.) and administrative procedure for implementing such exemptions? Please provide exact text with detailed justifications

BSNL Comments: As power emission of small cells are much lower compared to macro cells, thus exemptions may be granted to the Cell sites which are installed at certain height and emit lower than a specified power. A generic declaration and certification of the equipment can be adopted to avoid additional documentation and time consuming process. Criterion/ conditions and standards as already been defined by international bodies, TEC/DOT based on EIRP and Antenna height may be followed.

The declaration and certification of the equipment by TSP for meeting the criteria

should be sufficient for inclusion in the exemption category.

Q.9: For Small Cells that do not fall under the exemption category, should there be a simplified administrative approval process (like bulk approvals etc.) for deployment? If yes, what should be the suggested process? If not, what should be the alternative approach?

BSNL Comments: Yes, for small cells that do not come under exemption category already existing guidelines may be followed. However the time limit for providing the permission may be defined and in case of no response within the defined time, the permission should be deemed to be granted. The denial of permission by local authorities, except in case of reasons related to public safety and compliance to atheistic rules, should be made illegal.

Q.10: What power related problems are envisaged in deploying small cells on street furniture? Please provide full details.

BSNL Comments:

- i. Some DISCOMs do not treat the street furniture as a commercial address and have policy of giving one connection at same street furniture location, even subletting of existing power connection is not allowed;
- ii. Billing/metering issues: It will be difficult to manage billing of large number of connections;
- iii. Tariff issues, commercial tariff is high which may result in financial non-viability of small cells;
- iv. Ensuring uninterrupted power supply on street furniture.

Q.11: What viable solutions are suggested to address these problems? Please provide full details.

BSNL Comments: The suggested solutions are

- i. Battery backup to be installed with small cells;
- ii. Installation of solar panels/renewal energy source, wherever possible, with battery backup;
- iii. Policy of One Discom-One Bill-One payment for TSPs/IPs that use electricity connections at multiple locations;
- iv. Collaboration with controlling administrative authorities to resolve the issues arising due to DISCOMs, local bodies etc;
- v. As the sites will be large in numbers so bulk provisioning of electricity bills for all sites within particular area may be adopted instead of individual billing;

Q.12: Is there a need for standardizing the equipment or installation practices for next generation small cell deployment on street furniture? If yes, what are the

suggested standards and what should be the institutional mechanisms for defining, and complying to them?

BSNL Comments: Certain parameters like weight and overall dimensions may be standardized instead of whole design so that telecom equipment manufacturers may get liberty in designing the equipment for varied demands and scenario. The standardization of weight and dimensions of small cells will facilitate the local bodies to create the steel furniture infra that can be used by TSPs. Moreover, the installation practice need to be formulated to ensure public safety and aesthetic.

Q.13: Is there a need for a specific mechanism for collaboration among local bodies /agencies for deployment of small cells and aerial fiber using street furniture? If yes, what mechanisms should be put in place for collaboration among various local bodies/agencies involved in the process of permissions with TSPs/IP1s and to deal with other aspects of Small Cell deployment?

Q.14: Kindly suggest an enabling Framework that shall include suggestions about the role of various authorities, rules of coordination among them, compliance rules and responsibilities, approval process, levies of fees/penalties, access rules etc.

BSNL Comments: Yes, there is need for a specific mechanism for collaboration among local bodies /agencies for deployment of small cells and aerial fiber using street furniture as each agencies have their own bye laws and processes.

The scope of National and State level Broadband Committees should be changed to include the coordination and creating collaboration among TSPs and the local bodies for all types RoW permissions including for utilisation of street furniture.

The objective should be to create an inline processing system, wherein:

- i. TSPs/IPs shall provide location and line diagram of media plan(OFC/ Wireless) to local body
- ii. The local body shall provide permission within time frame as per availability of street furniture considering sharing mode.
- iii. Local body should online permission along with declaration of terms and conditions to be followed by TSPs.
- iv. State level Broadband Committees shall ensure coordination and on-boarding of the local bodies.
- v. National Level Broadband Committee should ensure coordination at State Government Level and Centre Level.

Q.15: How can sharing street furniture for small cell deployment be mandated or incentivized? What operational, regulatory, and licensing related issues are expected to be involved in sharing of small cells through various techniques in the Indian context and what are the suggested measures to deal with the same?

BSNL Comments: The sharing of street furniture for small cell deployment will help in overcoming the issues relating to power supply, permission, aesthetic, and monetary aspects. To able the same the following is suggested:

I/131786/2022

- The provision of MO-RAN model should be included in UL
- The capital cost involved in the installation of network shall be borne by all TSPs equally however operational cost may be apportioned amongst TSPs according to the share of the total traffic by each TSP.
- Financial Incentives in spectrum usage charges/LF may be provided to motivate the TSPs for sharing of street furniture.

Q.16: Whether there should be any specific regulatory and legal framework to enable Small Cell and Aerial Cable deployment on

- i. Bus Shelters
- ii. Billboards
- iii. Electric/Smart Poles
- iv. Traffic lights
- v. Any other street furniture

BSNL Comments: Yes, there is requirement of specific regulatory and legal framework to enable Small Cell and Aerial Cable deployment for mentioned street furniture. As the street furniture comes under the jurisdiction of state so a mechanism which may be adopted may have following features:

1. A common legal framework needs to be fixed all across the India which would be applicable on all administrative authorities and Telecom Service/Infrastructure providers with mediator roll of TRAI/ DoT.
2. Charges depending on the number/size/weight of equipment and per Km in case of fibre may be fixed and should be kept minimum and uniform for PAN India basis for such installations.
3. The states must ensure that the street furniture available with them is readily made available for use as mounting infrastructure for Information & Communication Technology (ICT) services.

Q.17: What should be the commercial arrangements between the TSP's/Infrastructure Providers and street furniture owners for the same?

BSNL Comments: Commercial agreements between the TSP's/Infrastructure Providers and street furniture owners may have following terms:

For TSPs, it would be better to take the street furniture through IPs by making necessary agreements between IPs & 3rd party with multiple street furniture owners i.e. Bus Shelters, Billboards, Electric/Smart Poles, Traffic lights or Any other street furniture which are managed by different authorities.

IP may charge TSPs as per tenancy of particular street furniture as Infra/ Electricity/ cost to owner/ other operational costs is associated with it in similar lines to IP site sharing.

For IP/TSPs commercial arrangements may have following costs in consideration.

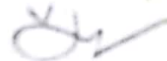
- i. Fixed street furniture rent
- ii. Electricity expense
- iii. Battery Backup capital cost
- iv. Capex for 5G cell

v. O&M of 5G telecom infrastructure

On the other hand, TSPs may also come up with the agreement for use of particular group of Street furniture (ex - Bus Stop shelters) by providing free 5G services for smart solution i.e M2M/IOT services by making it Smart Bus shelters against using these Bus shelters as Street furniture.

Similar Win-win solution agreements may be carried out by multiple street furniture (like electricity poles, traffic lights etc) so that fixed cost may be avoided for street furniture as well as potential customer base for 5G solution may be captured smoothly with M2M & IOT applications.

Yours faithfully



11 05 2022

(Ved Prakash Verma)

DGM (Regulation-II)

Mob no. 9868254555