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**Subject: COAI Response to the TRAI Consultation Paper on "Street Furniture for Small cell and Aerial Fiber deployment"**

Dear Sir,

This is with reference to the Consultation Paper on "Street Furniture for Small cell and Aerial Fiber deployment" released by TRAI on March 23, 2022.

In this regard, please find enclosed COAI response to the Consultation Paper.

We hope that our submission will merit your kind consideration and support.

Thanking you,

Yours faithfully,

**Lt. Gen Dr. SP Kochhar**
**Director General**

**Cc:**

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**COAI Response to the TRAI Consultation Paper on 'Use of Street Furniture for Small Cell'**

## Preamble

With the advent of 5G, there will be requirement to deploy Low Power Base Stations (LPBTS)[1] with 5G radios often called "small cells" due to network elements working on higher frequency spectrum bands, which have limited coverage. Considering the need for densification of the network, various types of street furniture such as poles (- street lights, electricity, traffic lights), advertisement hoardings, bus shelters and towers are suitable national assets for deploying small cells.

In this regard, we thank TRAI for initiating this very important Paper wherein the key issues pertaining to the deployment of the small cells & the aerial fibre using the street furniture and the Right of Way rules pertaining to the same are being discussed.

## Why Small Cells:

a. **Offloading:** The Macro site of the area is getting congested and is unable to serve the entire community of the area.

b. **Capacity used:** Shared Capacity: - The site serving the building/area is unable to meet the capacity of the part of the building/spot.

c. **Low Coverage of Signal:** Higher spectrum band.

d. **Indoor Coverage:** In building solution essential for indoor coverage including basement

Globally deployment of small cells in going to grow rapidly and it is expected that globally will be 1.56 million private 5G small cells deployed by 2027[2].

## Challenges w.r.t deployment of Small Cells:

a. The present rules on right of way are silent on small cell deployment and access to street furniture.

b. Lack of availability of backhaul. There is a shortage of adequate backhaul and at reasonable costs which throws up significant challenges in deployment.

c. Lack of electrical power supply. Permits from electricity boards are a challenge. Additionally, street furniture need power back-ups.

d. Non-uniform implementation of RoW rules by states and municipal bodies. The RoW rules have yet to be implemented by all states, union territories and municipal bodies.

[1] https://tec.gov.in/public/pdf/Whatsnew/Low%20Power%20BTS.pdf

[2] https://www.stl.tech/access-solutions/5G-small-cells/#:~:text=5G%20Small%20Cells%20Garuda%20Explained&text=next%20five%20years.,Private%20networks%20are%20non%2Dpublic%20networks%20and%20are%20set%20up,small%20cells%20deployed%20in%202020.

Many of them continue to impose their own costs and approval frameworks which are on the higher side.

e. High RoW Related Charges for using the Street Furniture, deployment of Small cells and fibre. High restoration Charges

f. Challenging to get access to adequate street furniture for deployment.

g. Online Portal is yet not available in all the States and central agencies, leading to delays.

h. Restrictions on installation of towers/Small cells near educational institutes, hospitals, airports, Defence establishments, religious places etc.

i. Lack of support from enforcement agencies like police dept. in dealing with public issues incl. EMF.

j. Permissions from several authorities including electricity, gas, sewerage, Railways, NHAI, forest authority causing delays and cost inefficiencies.

k. Permission/ approvals are kept pending, which can result in coercive action like demolition/ sealing.

l. Many States still not having enabling provisions for using the Street Furniture such as EB/LT Poles, Street Light Poles etc.

**Some Suggestions:**

a. Updating the Right of Way Rules, 2016 to include deployment of small cells.

b. Adopting simplified and streamlined procedures for building/street furniture permits for small cells based on standardized size, installation requirements and radio characteristics.

c. Ensuring uniform implementation of the Right of Way Rules, 2016 by all the states & union territories by the Central agencies.

d. Reducing admin and other Charges for small cells deployment and for laying the fibre

e. Designing guidelines to facilitate the acquisition of new sites and greater transparency on available assets such as towers, buildings and other structures.

f. Granting easy access to existing street furniture such as traffic lights, bus stops, street lamps, EB Power supply etc. on non-exclusive non-discriminatory Rights of Way basis

g. State electricity boards /distribution companies to ease permits for usage of their poles for deployment and mandatorily share with TSPs/IPs.

h. Exempting small cell installations from location registration requirements unless necessary for other reasons.

i. Implementing uniformity in grant of access to public spaces/ structures for installing small cells across state and the local bodies.

j. Facilitating deployment of backhaul and at lower costs.

k. Ensuring access to spectrum and provision of adequate spectrum bands for backhaul with wider channel sizes in millimeter wave (e.g. E & V Band) to augment capacities and improve site planning.

**Issue Wise response:**

**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.**

**COAI Response:**

1. Yes, the RoW Rules, 2016 must be modified considering the need for densification of the network required to deploy next-generation 5G telecom. We understand that DoT has circulated DRAFT RoW Rules which includes this.

2. **Some of the key modifications that we suggest in the existing RoW Rules as notified by DoT to accommodate small cell deployment are as below:**

   a. Provision for using the Street furniture for the deployment of Small Cells needs to be incorporated. For this purpose, there should be a clear definition of Street Furniture in place to avoid any ambiguity.

   b. Street furniture may be defined to include:
      i. Bus Shelters
      ii. Billboards
      iii. Electric/Smart Poles
      iv. Traffic lights
      v. Metro Pillars
      vi. Signage board
      vii. Any other poles
      viii. Any other street furniture

   c. **Charges for deployment of the Small Cells** should be defined as below so that no ambiguity arises in this regard:

      i. In the case of the establishment of poles for the deployment of small cells, the application fee should not exceed Rs. 100 per application for private land and buildings.

         This is considering the sheer number of small cells required to give desired coverage.

      ii. There should NOT be any application fee, land usage charge and compensation fee for using the street furniture, established by any person or entity for installing small

cells and OFC required to connect small cells **over the immovable property of the Local/Government Authority.**

d. **Usage of street furniture for the deployment of small cells:** We suggest following provisions to be incorporated in the RoW rules in this regard

i. There is a **need for identifying and cataloguing the diversity of suitable street furniture across the country and earmarking certain public infrastructure (municipality buildings, post offices, bus, and railway stations, etc.)** to have dedicated spaces that allow service providers to deploy small-cell architecture. The Service/Infrastructure Providers will not be required to take separate individual permissions for use of such spaces.

ii. A national online RoW portal with clearly defined roles for central, state, and local authorities should be established in line with TRAI recommendations on "Roadmap to Promote Broadband Connectivity and Enhanced Broadband Speed". This portal should streamline the approval processes for RoW permissions, including small cells and OFC.

iii. Local authorities and the state governments **must provide an inventory / details of the street furniture available, on the Online Central National RoW Portal (Sugam Sanchar)**. Such inventory should be classified on ready to use basis and to be deployed/made ready to use in the next 6-12 months the for industry to plan rollouts

iv. Norms related to the size and number of small cells deployed on any single street furniture infrastructure should be evaluated to make street furniture suitable for small-cell networks, and accommodate power, antenna, and associated cabling equipment.

v. **Provision for Bulk Application should be prescribed in the policy:** To facilitate the service providers, the RoW rules should permit bulk application facility based on standardized size, installation, and deployment specifications the applicant should be allowed to apply for a large number of poles for small cells under one application.

vi. The applicant should be required to submit to the Authority **a self-declared intimation on the online RoW portal** for the usage of street furniture and for the deployment of the small cell.

vii. Along with the written intimation, he shall also be **required to submit the details of the street furniture**, where installation of the small cells is proposed, and **a copy of certification by a structural engineer authorized by the appropriate authority.** RoW permissions must be expedited, with allowance of deemed approval under a single window clearance mechanism.

viii. The **details of authorized structural engineers shall be made available on the online RoW portal attesting to the structural safety of the street furniture**, where the small cells are proposed to be deployed. The Telecom Engineering Centre (TEC) should issue guidelines concerning the structural safety of the street furniture are for the installation of small cells.

ix. We would hereby like to submit that the provisions of the structural stability should not be applicable for the small cells exempted from getting the permission, based on certain criteria defined by the RoW policy.

x. The Central Government authorities should permit the **deployment of small cells on Government buildings and structures free of cost.**

xi. Applicants should also be permitted to enhance the capacities of street furniture at their own cost. The provisions should **also extend to street furniture installed by third parties on Government land.**

xii. **Facilitate the Power requirements:** The Small Cell **applicants should be given access to 24x7 power supply (at industrial or lower than industrial tariffs)** to support the telecom infrastructure at street furniture. Power requirements may also be specified to ensure only authorized equipment is deployed over shared street furniture. The applicant may also be permitted and enabled to use grid-connected captive power from renewable energy sources. The distribution licensees should consider small cells as 'consumers' (i.e., end user) of electricity and be entitled to get a separate electricity connection regardless of whether they are using the premises/apparatus of an existing consumer. Such power consumption charges to be decided on an average usage basis, instead of any requirement for individual metering.

e. Adequate **provisions should be ensured for the safety and security of telecom infrastructure by all States.**

f. RoW rules need to include the provision that due notice will be provided to the TSPs/IPs by the concerned Authority in case the Small cells need to be removed due to any reason.

g. RoW rules need to have provision for the Regularising any Small cells or any poles being used for deployment of Small cells for which the permission has not been granted by the concerned Authority.

**h.** Exempt RoW charges for at least five years as per **TRAI recommendations on "Roadmap to Promote Broadband Connectivity and Enhanced Broadband Speed" dated 31.08.2021.**

**i.** The RoW rules should be modified to provide a mechanism for compensating entities for damage caused to the fibre in the course of projects such as road widening, cutting of trees, laying of sewer/ water pipes, electric cable laying etc. The procedure must also provide a process for restoration of damaged fiber. Customers must also be protected by way of compensation for intentional fiber or cable cutting in relation to their services.

**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.**

**COAI Response:**

1. The RoW rules 2016 have been amended vide the Indian Telegraph Right of Way (Amendment) Rules, 2021 dated 21.10.2021 and further provide, inter alia, that for establishment of the overhead telegraph line over the immovable property, vested in control or management of any appropriate authority the amount of **one-time compensation will be maximum one thousand rupees per kilometer of the overground telegraph line established**.

2. Further, **the concerned agencies such as DISCOMS & Urban Development Departments of the States also Charge for the usage of their electricity poles and street light poles for deployment of aerial fibre**. Different agencies in different states are charging different rates and, in most cases, exorbitant rates hampering the deployment of aerial fibre. **We suggest a uniform rate in this regard, need to be prescribed in the RoW rules.**

3. We suggest following Changes in the RoW rules for facilitating aerial fibre deployment:

    a. Any inclusion in Central RoW Rules (of DoT) specifically that includes type of telegraph that is a Union subject, should automatically be deemed included in States' RoW policies

    b. N**either any application fee nor any compensation be levied for erecting the new poles for providing support to** aerial fibre deployment **including additional poles between the existing poles**.

    c. Further, as recommended in Odisha RoW Policy no. 2871/E&IT EIT-V-Dev.-II-04/2017 dated 14.09.2017 Annual compensation **for using existing poles** of any authority to establish an overground telecommunications line (OFC) **shall not exceed Rs. 100 per pole in areas of jurisdiction of Urban Local Bodies and Rs. 50 per pole in areas of jurisdiction of Non-Urban Local Bodies** utilizing which the telecommunications line is proposed to be established"

    d. Structured aerial fibre rollout should be permitted for rapid rollout in dense urban environments and difficult areas. The framework for structured aerial cabling, small cell deployment should be defined with the objective of realistically facilitating implementation.

    e. Use of existing board poles, metro pillars, gas pipelines etc for light weight optic fibre to be clamped with the right accessories should be expressly permitted to accelerate the pace of rollout

4. Further, we suggest that list of existing and planned future street furniture should be made available on the respective State's RoW Portal/ Central Authority (Defence, NHAI, Ports, DoP, etc.) by the infrastructure owning authorities which can be utilized for the deployment of the aerial fibre.

**Q3: What are the suggestions of stakeholders for aligning RoW policies issued by various other Central Government Bodies with existing DoT RoW policy?**

**COAI Response:**

1. **We are of the view that there should be some form of legal enforceability from Central**

**Govt. on the RoW Guidelines to making it mandatory on States/UTs/Central Agencies to adopt RoW guidelines in place.**

2. The **legal mechanism must ensure strict compliance to the RoW Rules by the local authorities (including central agencies)**, thereby preventing local authorities from creating impediments in the deployment / maintenance of telegraph infrastructure. Unless such a mandate is prescribed, the licensees will be disabled from realizing well intended reforms in ROW regime and effectively deploying essential telegraph infrastructure across the country and providing the desired services to the customers. The Indian Telegraph Act, 1885 (ITA) should be amended to provide the DoT the right to regulate for other governmental bodies for deployment of small cells.

3. All central government bodies, agencies, ministries, departments and the authorities under these should operate under DoT RoW Rules. Therefore, the Forest Ministry, MoUD, MoD, IT departments, etc. should follow one RoW guidelines.

4. Similarly, the CPSEs, PSUs falling under the Union ministries/departments should also fall under the ambit of Central RoW rules issued by DoT, and mandatorily align with it.

5. Airports (under AAI and Association of Private Airport Operators [APAO]) must all align their RoW charges and approval processes to reflect GoI (DoT) RoW Rules. Airports are part of public infrastructure and it is important that flyers have access to timely and quality Telecom services. The AAI Rules should be applicable on APAO for the purpose of RoW.

6. Any Smart City, municipality, state body getting financial support (in part or full) through Union Government funding must facilitate deployment of Small Cells and telecom infrastructure.

7. All Central bodies/agencies/departments should simplify their processes, i.e., in terms of charges and less paper, and avoid duplication. Railways, Forest departments and NHAI require a lot of extra paperwork and their lead time is huge – they should move processes online and reduce paperwork; thereby increasing lead-times for faster rollout of 5G in the country.

8. Bank Guarantee's (BGs) requirements should not be there especially where restoration is carried out by the Government/local body/authority. Only in case where restoration is done by a TSP/IP if BG requirement cannot be fully done away with, then the BGs amount should be of limited to 15-25% of the restoration cost.

9. Further, there should be a defined timeframe to return the Bank Guarantees by the Govt.

10. Service tax should not be charged by local authority on RoW.

**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.**

**&**

**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**

**COAI Response:**

1. Yes, given the potential benefits of small cell deployment, it should be **mandated** that specified public infrastructure is available and is shared for small cell deployment.

2. Existing legal framework does not support such mandating of sharing of street furniture between controlling administrative authority and Telecom Service/Infrastructure providers for deployment of small cells and aerial fiber. We are of the view that **it should be mandated that certain public infrastructure such as municipality buildings, post offices, bus stations, and railway stations, etc., be earmarked to have dedicated spaces** that allow service providers to deploy macro/small cells.

3. However, we believe that the controlling administrative authority can enable it by issuing the relevant administrative order/permission in discussion with DoT and TSPs/IP1s, on a non-exclusive and non-discriminatory basis. Also, all future tenders of such furniture (pillars, bus shelters) should include specifications to host telecom infrastructure on a sharable and non-exclusive basis with power and backhaul supply wherever possible.

4. The T&Cs for such sharing should be simple and on nominal charges. They should not be benchmarked to local area land/commercial rates. Rather the controlling authorities should look at enabling the telecom connectivity surrounding their infrastructure, while also making use of their assets.

5. Use of street furniture should be facilitated either through amending the RoW 2016 rules or in form of Guideline to/from Central ministries like Power and Telecom for mandatory sharing of their Street furniture without any discrimination and no IPs/TSPs/Cable operators should have exclusive rights on any kind of street furniture.

6. All street furniture should be made available to all TSPs and not be based on any criteria whatsoever otherwise that may be prone to exclusivity or discrimination.

7. We believe that there is a need for a holistic view of all the issues involved for facilitating the deployment of the Telecom Infrastructure on the street furniture. Identifying and cataloguing the diversity of suitable street furniture across the country and earmarking certain public infrastructure (municipality buildings, post offices, bus, railway stations, etc.) to have dedicated spaces will allow service providers to deploy small-cell architecture and ease the administrative process for local authorities. Infrastructure should be earmarked in accordance with technological survey of factors such as the most suitable locations for furthering connectivity within a region, footfall in the vicinity, current coverage in the region, etc. Further, in earmarked regions the approval processes should be simplified to incentivise setting up of small cell infrastructure

8. This can be done with amendments to the RoW Rules as the overriding concept remains the same, i.e use of government infrastructure for telecom infrastructure.

9. Traffic signals, metro lines, busses, etc. can be identified/ classified as street furniture and **should be mandated for use for deployment of small cells.**

10. As per our members' assessment, the required space for pole and infra (SMPS & Battery Bank) is 1.5 meter*1.5 Meter. The space should be able to accommodate power, antenna and associated cabling equipment.

11. There should be an unrestricted access (24x7) of the Street furniture for the service providers (TSPs/IPs).

12. All private and government utility providers while putting-up new assets such as gas pipelines, 33KV -440V power lines, street lights - should be required to create corridor for telecom infrastructure to support deployment of small cells and aerial fiber. We further suggest that the In-Building Solutions (IBS) for laying cables or installing telecom infrastructure should be made mandatory inside the housing projects and premises.

13. We submit that the current National Building Code (NBC) mentions about DAS/ IBS and wireless system, however, in order for uniform growth, a provision should be made in the Building Rules / bye-laws to ensure compliance of the same as a condition precedent for grant of Building Completion certificate.

14. We further submit that with regards to the new building premises,no building plan should be approved without Critical Telecom Infrastructure (CTI) and Telecom Duct and issue a Completion Certificate only after ensuring CTI as per standards is in place.

15. Government should ensure that the essential requirement for telecom installations and the associated cabling is formed part of the National Building Code of India (NBC), which is amended by the Bureau of Indian Standards (BIS).

16. The telecom ducts to access the buildings from outside should invariably be part of the CTI, which could be used by TSPs/IP-I for putting cables; which would ensure unhindered access to TSPs/IP-I.

17. **Thus a uniform policy, keeping the above aspects in mind, should have a single legal framework for the entire country and need to be applicable for the deployment of all kinds of infrastructure elements.**

18. In absence of a uniform national policy several procedural issues occur which result in increased costs, delayed investments, higher rollout time, and poor quality of service for the TSPs.

**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.**

**COAI Response:**

1. We agree that there should be no exclusive RoW **and it should be available for sharing on a non-discriminatory basis as exclusive RoW** may lead to hampering of access and/or

creation of business models based on ROW access; which should be avoided,

2. However, the infrastructure mutualization and collaboration should not be mandated and should be left to market forces

3. The best way to ensure sharing is that there should be mandatory provisions in the license agreement/registration of IP-I providers, thereby restricting execution of any tender/contract with local authorities which caters to exclusive right over utilization of street furniture. Such conditions against the exclusive arrangement would go a long way in ensuring optimum uptake of street furniture for small cell deployment, thereby helping in densification of networks.

**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?**

**&**

**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**

**COAI Response:**

1. Based on the technical documentation (transmitted power, antenna gain, form factor, weight and height criteria etc.) of the small cell designs, installation classes can be defined. Installation for these classes can be made eligible for a permit exemption. Further, exemption may be permitted based on 5G/access technology requirements.

2. RoW without payment of any charges can be granted for installation of small wireless equipment /small cells on existing street furniture viz. poles, towers, buildings and other structures and charges, if any, should be only levied in case of any defacement of such structures. Such charges must be limited to restoration charges.

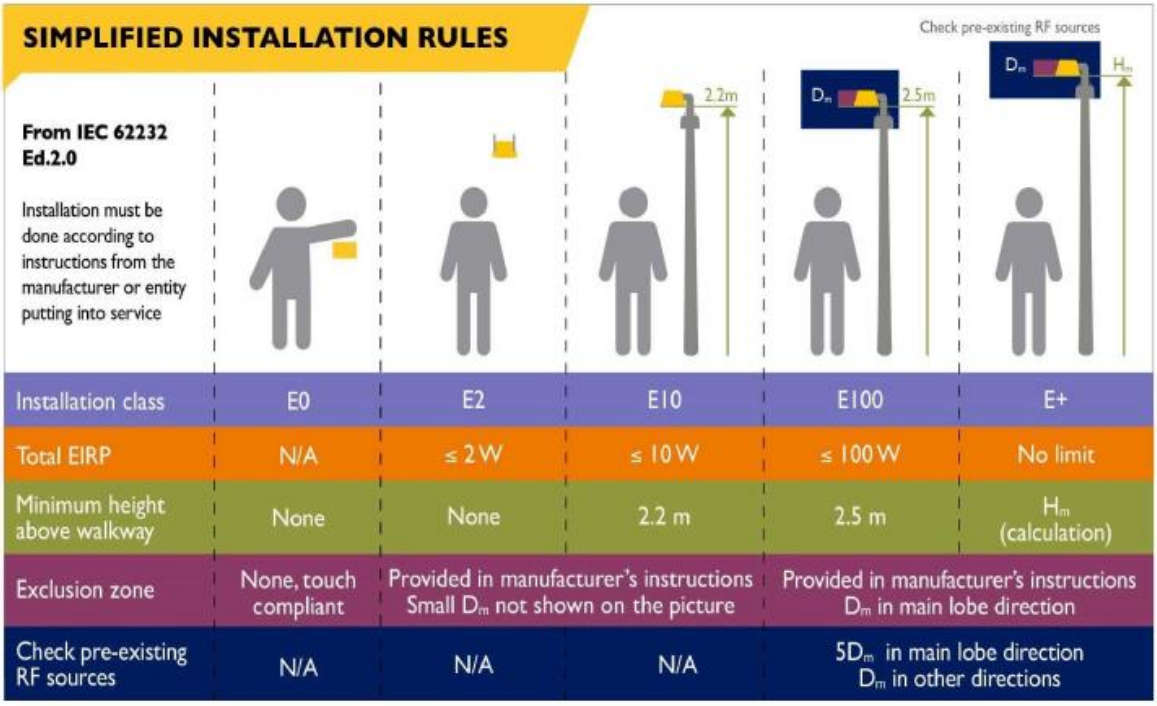
3. There should be mandate on apartments / RWA / building owners to host infrastructure for at least one infrastructure provider (IP) at nominal rates which in any case should be capped to facilitate telecom connectivity in the premises. There should be a legal framework for resolution mechanism to gain co-location access at designated places if apartments / RWA / building owners deny facilitating such hosting.

4. Apartments / RWA / building owners should be allowed to feed power to infrastructure providers' equipment without any NOC / associated process with energy distribution company (Discom). The power consumption of infrastructure devices will be measure using sub-meters and payment can be made to the owner of the building as per Discom fixed power tariff rates.

5. The cell sites which are installed at certain height clearances and emit lower than a specified power, a generic declaration and certification of the equipment at a national/regional/local level **can be adopted to avoid additional documentation and time-consuming processes.**

6. TSP's view must be taken into account while finalising such classification and these should be uniformly adopted across all states.

7. We are of the view that the "International Electrotechnical Commission (IEC) Simplified Installation rules for Small cells" may also be adopted in India as well.




8. We are of the view that no permission should be required for the Installation Class E0, E2 and E10 as prescribed IEC **Simplified Installation rules for Small cells.**

9. For these class of small cells only **a self-declared intimation on the online RoW portal** for the usage of street furniture for deployment of the small cell should be required.

10. Further, waiving building permits requirement like in Egypt, the European Union and permission to install 5G base stations on traffic lights as in Japan are some of the international best practices which India can also adopt for the deployment of Small cells.

**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?**

**COAI Response:**

1. Yes, for Small Cells that do not fall under the exemption category, **there should be a simplified administrative notification process like bulk approvals, etc.** for deployment. The same can be provided by local authorities over Centralised Online National RoW Portal

(Sugam Sanchar).

2. DoT has already developed a centralised online single window Right of Way portal to be used for processing the application for the deployment of the Telecom Infrastructure.

3. The **portals already developed by State Governments/UTs need to be integrated with the Sugam Sanchar portal.** While the States/UTs who have not developed their own Portal need to use the Sugam Sanchar portal for processing the applications filed by TSPs/IPs for the deployment of Telecom Infrastructure

4. We submit that the ROW Portals of all the central Ministries/departments like M/o Defence; M/o Environment Forests and Climate Change; M/o Road Transport and Highways; M/o Railways; M/o Petroleum and Natural Gas; M/o Housing and Urban Affairs; Ministry of Ports, Shipping and Waterways; M/o Civil Aviation; Department of posts **should be integrated with the Centralised RoW Portal Sugam Sanchaar.**

5. The relevant Authority (e.g. **Electricity Department) be able to give bulk approval on the applications**

6. The approval process should be in a defined timeline manner with a provision of deemed approval post 30 days of applying the application.

7. DoT can recommend suitable and nominal rates which service providers can pay towards setting up small cells at private locations, which they can opt to use as their standard payment norms.

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

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

**COAI Response:**

1. **Power related problems are as mentioned below:**

   a. Some of the DISCOMs do not allow giving separate connection for installing electricity meters on street furniture.

   b. Some DISCOMs do not treat the street furniture as a commercial address.

   c. Some DISCOMS have a policy of giving one connection at one address and their processes or IT systems do not allow installing another connection at the same street furniture location.

   d. Affordability of the power: State Electricity Regulatory Commissions prescribe different rates for commercial, industrial, utility, billboard, etc. connections

e. Small Cell as new special category for very low tariffs: As per the Electricity Act, 2003, respective State Electricity Regulatory Commissions in each state determine the electricity tariff applicable on consumption of electricity by different classes of consumers (such as domestic, commercial, industrial etc.). Given that the small cell technology is at its nascent stage, the tariff orders issued by these state commissions may not provide adequate guidance on the slabs which will be applicable on electricity consumed for operating small cells. To incentivise small cell deployment, they may be charged at the rates applicable on 'public utilities' – telecom towers are usually charged for their consumption on the rates applicable to industrial consumers. For context, typically, the retail rates for electricity for 'public utilities' is lower than for industrial and commercial consumers.

f. Usually, distribution licensees only allow one grid connection point for each consumer address. Also, subletting of an existing power connection from one consumer to another to is not allowed under the existing regulatory framework. The distribution licensees should consider small cells as 'consumers' (i.e., end user) of electricity and be entitled to get a separate electricity connection regardless of whether they are using the premises/apparatus of an existing consumer. The distribution licensees should also clarify the documents required to obtain connection for small cells considering that there might already be an electricity connection issued at the address at which small cell is installed.

g. Currently, the distribution licensees lay overhead lines for supply of power to the consumers, including supply of power to street furniture. However, in case the distribution licensees replace overhead lines with underground cables (which a few DISCOMs are contemplating already), small cells may have to be relocated. Appropriate measures regarding relocation of small cells installed on overhead lines/poles should be contemplated at this stage.

**2. Solutions to address Power related problems:**

a. To facilitate faster rollouts, the requirement of taking power **connections on several poles or street furniture can be facilitated through the process of bulk approvals.**

b. DISCOMs can adopt **One DISCOM-One Bill-One Payment policy** for all Business users that use electricity connections at multiple locations including telecom sector service/infra providers. The distribution licensees should consider small cells as 'consumers' (i.e., end user) of electricity and be entitled to get a separate electricity connection regardless of whether they are using the premises/apparatus of an existing consumer.

c. Telecom sites **should be provided electricity connection at lower than industrial tariffs.** SERCs (State Electricity Regulatory Commissions) can be requested to incorporate the same in their tariff orders.

d. Appropriate measures regarding relocation of small cells installed on overhead lines/poles should be contemplated in case of their replacement with underground cables.

e. In context of renewable sources, we highlight that the Open Access (OA) policy can be very helpful for Telecom operators to help achieve Solar targets while making sector's footprint much greener However, an important limitation in the OA policies - that the buyer must have a minimum 'Connected Load' typically 1MW, which is being followed by majority of States – acts as a bottleneck.

f. From a Telecom perspective, since Small Cells will consume significantly less electricity than 1MW, the TSPs will not be able to make use of OA policy for renewable sources. **To address this challenge the Small Cells should be explicitly exempted from any minimum connected load requirement under the Open Access policy.**

g. For areas where electricity supply is disrupted or not available, installation of Solar Panels with battery backup can be an option.

h. Dedicated permission for providing earth pits should be there.

i. Charging of power should be on the basis of running load, there should not be any charges on the basis of fixed load.

**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?**

**COAI Response:**

1. Members will represent individually on this matter of standardizing the equipment or installation practices for next generation small cell deployment.

2. EMF exposure in India should be considered for revision and aligning with ICNIRP 2020 norms.

**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?**

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**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.**

**COAI Response:**

1. Under the National Broadband Mission the National and State Level Broadband Committees has already been constituted, which work to address various issues pertaining to the deployment of the broadband /digital Infrastructure with a ultimate aim to meeting the targets of key Parameters specified in the National Broadband Mission. These committees should function as both knowledge gathering and sharing hubs as they will take inputs from the local bodies as well as assist them in granting permissions regarding small cell and Aerial Fiber deployment. An SOP can developed for use by the local bodies to assist in small cell deployment.

2. **Further, PM Gati Shakti initiative which** is a digital platform that **connects 16 ministries**

with a view to ensuring holistic planning and execution of infrastructure projects. National Master Plan aims to boosting last-mile connectivity and bringing down logistics costs with integrated planning and reducing implementation overlaps. We suggest that these initiatives need to be used to collaborate between various central and state agencies and local bodies and Industry stakeholders. However, the overarching permissions should be governed by the RoW Rules.

3. For ensuring collaboration between various State Authorities and Local Bodies, various local authorities and the state governments **must provide the details of the street furniture on the Online Central National RoW Portal (Sugam Sanchar)**. Such inventory should be classified on ready to use basis and to be deployed/made ready to use in the next 6-12 months for industry to plan rollouts.

4. There should be neither application fee nor compensation for using the street furniture, established by any person or entity over the immovable property of the Local/Government Authority, for installing small cells and OFC required to connect small cells.

5. **Provision for Bulk Application should be prescribed in the policy:** To facilitate the service providers, the bulk application facility should be permitted i.e. the applicant should be allowed to apply for a large number of poles for small cells under one application.

6. The applicant should be required to submit to the Authority **a self-declared intimation on the online RoW portal** for the usage of street furniture for deployment of the small cell.

7. Along with the written intimation, he shall also be **required to submit the details of the street furniture**, where installation of the small cells is proposed, and **a copy of certification by a structural engineer authorized by the appropriate authority.**

8. The **details of authorized structural engineers shall be made available on the online RoW portal attesting to the structural safety of the street furniture**, where the small cells are proposed to be deployed. The Telecom Engineering Centre (TEC) should issue guidelines concerning the structural safety of the street furniture are for the installation of small cells.

9. The Central Government authorities should permit the **deployment of small cells on Government buildings and structures free of cost.**

10. Applicants should also be permitted to enhance the capacities of street furniture at their own cost. The provisions should **also extend to street furniture installed by third parties on Government land.**

11. **Facilitate the Power requirements:** The **applicants should also be given access, to requisite 24x7 power supply (at industrial or lower than industrial tariffs)** to support the telecom infrastructure at street furniture. The applicant may also be permitted and enabled to use grid-connected captive power from renewable energy sources. Such power consumption charges to be decided on an average usage basis, instead of any requirement for individual metering.

**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?**

**COAI Response:**

**Members will represent individually on the issue of sharing of street furniture.**

1. **Small Cells sharing:**

   i. The sharing of Small Cell should be on mutually agreed basis among the TSPs, and no mandate is required.

   ii. We do not see any issue in case Small Cells sharing since it does not entail spectrum sharing. Hence no licensing or regulatory intervention is required for a telecom licensee.

**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**

**COAI Response:**

1. Yes, there should be a regulatory and legal framework to enable Small Cell and Aerial Cable deployment on Street furniture's like bus shelters, billboards, EB poles, traffic lights, etc. We suggest that these all should be governed by the RoW Rules itself.

2. **Some of the recommendations are as below:**

   a. Instructions to SEBs/DISCOMs to give permissions for usage of their poles for the deployment of telecom infrastructure on non-discriminatory basis

   b. Annual compensation for using existing poles/ EB Poles of any authority to establish an overground telecommunications line (OFC) shall not exceed Rs. 100 per pole in areas of jurisdiction of Urban Local Bodies and Rs. 50 per pole in areas of jurisdiction of Non-Urban Local Bodies utilizing which the telecommunications line is proposed to be established.

   c. However, no application fee shall be levied by the Central Government Authority for the establishment of poles on central government land for the deployment of small cells and OFC required to connect small cells.

   d. No Location based restrictions.

   e. Access should be granted on a 24X7 basis

   f. Access to the Street furniture should be provided to service providers on a non-

discriminatory and non-exclusive basis.

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

**COAI Response:**

1. Deployment of small cells should not be seen as a source of revenue by various Local Authorities and Government Bodies.

2. We suggest that the Annual compensation **for using existing poles/ EB Poles** of any authority to establish an overground telecommunications line (OFC) shall not exceed Rs. 100 per pole in areas of jurisdiction of Urban Local Bodies and Rs. 50 per pole in areas of jurisdiction of Non-Urban Local Bodies utilizing which the telecommunications line is proposed to be established should be fixed through the RoW policy guidelines.

3. Any charges being prescribed should be publicly disclosed, competitively neutral, technology neutral, non-discriminatory and based on actual and direct costs (including, for example, costs for maintenance and inspections).

4. DoT should propose a standardised agreement format to be entered into between small cell service providers and street furniture owners for this purpose.

5. There should not be any exclusive tie-ups on using the street furniture, through said commercial arrangements. The best way to ensure sharing is that there should be mandatory provisions in the license agreement/registration of IP-I providers, thereby restricting execution of any tender/contract with local authorities which caters to exclusive right over utilization of street furniture. Such conditions against the exclusive arrangement would go a long way in ensuring optimum uptake of street furniture for small cell deployment, thereby helping in densification of networks.

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