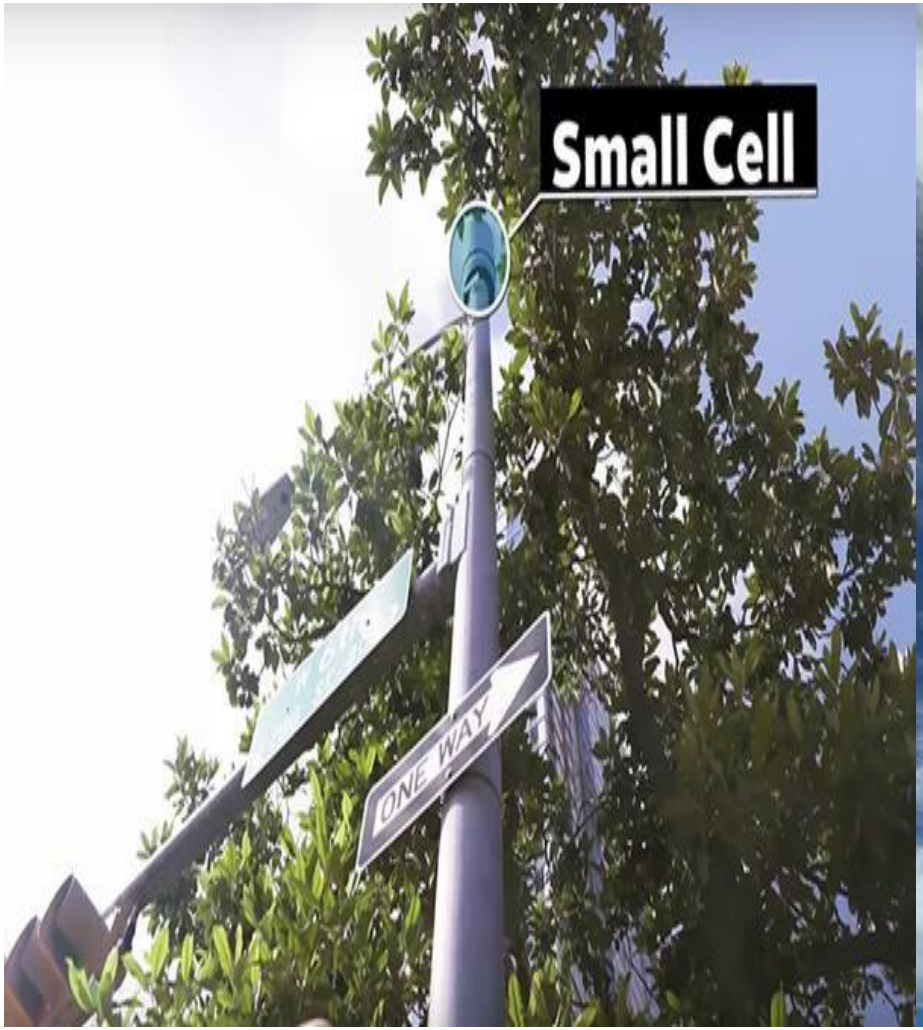
Policy intervention in Power sector for Installation of 5G cells on Electricity Poles across States/UTs

Small Cell deployment at Street Light Poles



5G cell deployment- Smart Pole - Vizag City

5G cell pilot deployment - KSEBL

POC- Installation of 5 G cell at Ernakulam – Kerala

PoC for WiFi Access Point on Electric Poles

5G cell Pilot deployment – BRPL Delhi

5G cell deployment – Bhopal

ISSUES AND RECOMMENDATIONS

Use of Electricity Poles for 5G cells

- Use of HT poles (11 KV/33 KV), may not be feasible to be used for telecom purposes.
- Keeping in view the safety issues, it is recommended that only LT poles with ABC cables/ covered conductors can be used as street furniture for installation of 5G cells as using LT poles with bare conductors can cause safety issues during installation and O&M of 5G cells.
- The existing street lighting poles/ Traffic lighting / sign boards / bus shelters etc. having LT power supply arrangement may also be used as street furniture for 5G cells.
- The backhaul connectivity of existing fiber network owned by many Discoms may also be explored as an alternative.

ISSUES AND RECOMMENDATIONS

Safety and Security Issues

- As 5G set up would weight around 30-40 kgs, hence proper attention should be given to strengthen the foundation of the electric pole before any installation of 5G network components
- It would be preferable to install battery box with power supply system at the base of the pole with adequate locking arrangement and GPS tracking for preventing the theft etc. An alternate mechanism is to place the battery box in an underground assembly, as being done in the case of Smart Poles.
- In case of high strength poles like Rail pole/H beam/ spun pole etc., the Battery system may be installed on poles with adequate strength clamps etc.

ISSUES AND RECOMMENDATIONS

Asset Inventorisation

- Meity may assist in integration of 5G assets/infrastructure portal with other initiatives of GoI such as PM Gati Shakti project portal thereby supporting GoI in achieving comprehensive development.

ISSUES AND RECOMMENDATIONS

Common Electricity Billing

- As each 5G cell / 5G BTR would require power supply of about 2 KW load, the installation of so many meters at each cell would not be techno-economically feasible for Discom.
- It would be appropriate for establishment of a mechanism for issuance of single composite bill for multiple connections of 5G Cells.
- The telecom service provider/Discom may approach the concerned SERC for issuance of such order for this purpose.
- The category of above connection may be defined (commercial/Industrial). SERCs may also consider for creation of a separate tariff slab/category for the above case, if desired.

ISSUES AND RECOMMENDATIONS

Regulations by SERCs for sharing of distribution assets and Revenue Earned by Discoms

- As sharing of Distribution sector assets (Poles/ sub-stations /buildings /towers etc) for 5G cells deployment is an commercial deal between TSP and Discom,
- SERCs may issue the Regulations for sharing of revenues earned by Distribution utilities through telecom business indicating the percentage of revenue which may be shared between the distribution utilities and the consumers.
- CERC for CTU and DERC for Delhi discoms have already issued such regulations in this regard.

THANK YOU