

Radio spectrum is a natural resources endowed to all the nations with the same quantum. Like wind and clouds, radio waves defy and crisscross across the political boundaries. Importance of spectrum for sustainable growth of telecom services cannot be overemphasized.

We thank Telecom Regulatory of India for releasing Consultation Paper on “Spectrum Usage Charges and Presumptive Adjusted Gross Revenue for Internet Service Providers and Commercial Very Small Aperture Terminal Service Providers”.

Before addressing specific issues, it is worth spotting trends in the usage of spectrum in the context of telecom services. Traditionally, wireless links in telecom networks were mostly point-to-point, long distance (transmission / trunk network) and high in power. However, the trend is to use wireless in point-to-multipoint access networks (last mile) spanning shorter distances using lower power. This change, coupled with advances in modulation and coding technologies has resulted in ability to serve more customers by more service providers using less spectral bandwidth and for a variety of usage. Smart antennae, embedded and software radios have also enhanced the scope and convenience of usage.

The mentioned bands of 2.7 GHz/ 3.3 GHz/ 5.7 GHz/ 10.5 GHz are primarily being used for last mile connectivity by ISPs to connect their enterprise, corporate and SME customers.

There has been year-on-year reduction in number of sites being renewed by ISPs due to change of the formulae for calculating the spectrum charges. The spectrum charges for each site increased by approx. 2.5 times. As mentioned above, the deployments in these administratively assigned spectrum is only in major towns for connecting Enterprise customers, it is hereby requested that the methodology be reversed so as to bring spectrum charges to pre-2012 levels. This shall motivate providers to deploy more sites on the assigned spectrum and thereby increase Internet penetration in the country as also revenue to the Government.

Further, ISPs use multiple last miles to deliver services to their customers viz copper, fiber, cable operator, Wi-Fi, and many more. Therefore, there is no rationale in either charging AGR or SUC on the spectrum assignment as the AGR is being paid by ISPs as per their license conditions.

Use of wireless in the telecom context, wireless access systems can revolutionise growth, affordability quality and usage of ICT (Information & Communications Technology) as well. Country should now think of ways to bring wireless-fidelity applications so as to make use of unlicensed radio spectrum to deliver cheap and fast Internet access. De-licensing should be considered as a genuine impetus for innovation and flexibility in the public interest at large.

**Q1: Should the spectrum assignment on location basis/link-by-link basis on administrative basis to ISPs, be continued in the specified bands. If not, please suggest alternate assignment mechanism. Please justify your answer.**

Response: As we are aware, ISP business involves providing Internet connectivity to retail subscribers as well as Enterprise customers including small and medium business. All the retail subscribers and enterprises use Internet for a fixed location and are not mobile. Hence, it is recommended to continue spectrum assignment on location basis/link-by-link basis on administrative basis to ISPs in the specific bands albeit with a rational and affordable pricing for such link "s royalty charges.

**Q2: Should minimum presumptive AGR be introduced in ISP license for the purpose of charging SUC? If yes, what should be the value of minimum presumptive AGR and basis for its computation? Please provide justification for your response.**

Response: Setting up an ISP business requires lot of capital investment in backbone infrastructure readiness, security and licensing compliance readiness as well as last mile extensions; besides license fee, PBG and FBG, as applicable. Minimum presumptive AGR will act as an entry barrier and deterrent for new ISPs. This may also lead to increase in prices for Internet to consumers, as ISPs may pass on such burden further. Hence, it is not recommended to levy any minimum presumptive AGR in ISP license for purpose of charging SUC.

**Q3: Is there a need to introduce SUC based on percentage of AGR for ISPs or should the existing formula based spectrum charges continue? Please give justification while suggesting a particular method of charging SUC.**

Response: Introducing SUC is not recommended due to the complexity involved. ISPs keep on changing last miles over various media to connect and provide best-in-class services to their customers. Hence, it will be practically difficult to implement SUC and therefore it is recommended to continue with formula based spectrum charges.

**Q4: If AGR based SUC is introduced, whether the percentage of AGR should be uniform for all ISP licenses or should it be different, based on revenue/spectrum-holding/any other suitable criteria? Please suggest suitable criteria with reasons.**

Response: As per the above response, it is not recommended to introduce SUC.

**Q5: What mechanism should be devised for ISP license to identify revenue generated from use of spectrum and revenue generated without use of spectrum? Please give your view on this with justification.**

Response: Although, the operators are filing their broadband subscriber report to TRAI on the basis of their respective last miles, this data cant be used to calculate AGR in link/subscriber basis which is not feasible

**Q6: In case minimum presumptive AGR is prescribed for the ISP license, what percentage should be applied on minimum presumptive AGR to compute SUC? Please provide justifications for your response.**

Response: Same as above.

**Q7: In case, Formula based spectrum charging mechanism in ISP license is to be continued, do you feel any changes are required in the formula being currently used that was specified by DoT in March 2012? If yes, suggest the alternate formula. Please give detailed justification.**

Response: Yes, it is strongly recommended to reverse the charging mechanism to pre-2012 levels as per the rationale provided in "Preface".

**Q8: Do you propose any change in existing schedule of payment of spectrum related charges in the ISP license agreement?**

Response: Payment terms should be changed to Quarterly in advance instead of yearly advance. This will help ISPs to manage cash flows in an appropriate manner.

**Q9: Should a separate regime of interest rates for delayed payment of royalty for the use of spectrum be fixed in ISP License or should it be the same to the prevailing interest rates for delayed payment of license fee/ SUC for other licensed telecom services?**

Response: The current rate of interest charged by WPC on delayed payment is 2% per month. In view of the prevailing interest rates, it is strongly recommended that the interest rates be linked to SBI PLR.

**Q10: Should separate financial bank guarantee or single financial bank guarantee be submitted by the ISP licensee covering LF payable, fees/charges/royalties for the use of spectrum and other dues (not otherwise securitized)? If yes, what should be the amount of such financial bank guarantee in either case?**

Response: It is recommended to maintain status quo on FBG.