

1178/TRAI/ISP/15

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Shri Sanjeev Banzal
Advisor (Network, Spectrum & Licensing)
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan,
Old-Minto Road, Near Zakir Husain College,
New Delhi – 110003

Subject: ISP/ response to TRAI Consultation Paper no. 6/2015 on "Valuation and Reserve Price of Spectrum on 700, 800, 900, 1800, 2100, 2300, 2500MHz Bands"

Dear Sir,

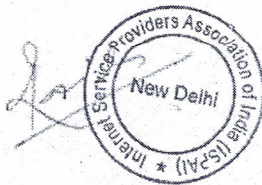
We congratulate the Authority to have come out with the consultation paper on the matter captioned above and sincere thanks for providing us the opportunity to submit our response on this matter.

We have enclosed our comprehensive response for your consideration. We believe that the Authority would consider our response in positive perspective and incorporate our concerns on the subject matter.

Looking forward for your favourable consideration.

Thanking you,

With Best Regards,
For Internet Service Providers Association of India



Rajesh Chharia
President
+91-9811038188

Encl: As above

ISPAI Response to TRAI's Consultation paper on "Valuation and Reserve Price of Spectrum in 700, 800, 900, 1800, 2100, 2300 and 2500 MHz Bands"

We thank Authority for starting this consultation exercise, which subsequently will boost Internet penetration across country.

The benefits of Internet penetration are not unknown, even now through "Digital India" campaign, significant growth & connectivity in the rural area is expected, which still was lagging behind. The major benefits accrued with the release of additional spectrum are as:

- ✓ Financial Inclusion
- ✓ Medical benefits
- ✓ E-governance & E-Commerce
- ✓ Connectivity
- ✓ Education

In this regard, the valuation of spectrum becomes more crucial as it will be a responsible factor for delivering/provisioning of Internet up to farthest corner of country.

Our response on the various issues raised in the consultation paper as represented below:

1. **Whether the entire spectrum available with DoT in the 800 MHz band be put for auction? Justify your answer.**

ISPAI Response:

Yes, the entire spectrum available with DoT in the 800 MHz band shall be put for auction.

2. **How can the spectrum in the 800 MHz band, which is not proposed to be auctioned due to non-availability of inter-operator guard band, be utilised?**

ISPAI Response:

No Comments

3. **What should be the block size in the 700 MHz band?**

ISPAI Response:

We would recommend a block size of 2x5 MHz as it will be least block size for LTE technology to deploy.

4. Whether there is any requirement to change the provisions of the latest NIA with respect to block size and minimum quantum of spectrum that a new entrant/existing licenses/expiry licensee is required to bid for in 800, 900, 1800 and 2100 MHz bands. Please give justification for the same.

ISPAI Response:

No, the block sizes & minimum quantum of spectrum for new entrant/existing licenses / expiry licensee shall be as per latest NIA's

5. What should be the block size in the 2300 MHz and 2500 bands?

ISPAI Response:

The block sizes for 2300 MHz & 2500 MHz shall be same as NIA 2010.

6. Considering the fact that one more sub-1 GHz band (i.e. 700 MHz band) is being put to auction, is there a need to modify the provisions of spectrum cap within a band?
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7. Is there any need to specify a separate spectrum cap exclusively for the spectrum in 700 MHz band?
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8. Should a cap on the spectrum holding within all bands in sub-1 GHz frequencies be specified? And in such a case, should the existing provision of band specific cap (50% of total spectrum assigned in a band) be done away with?
&
9. Should 2300 MHz and 2500 MHz bands be treated as same band for the purpose of imposing intra-band Spectrum Cap? Please support your suggestions for Q6 to Q9 with proper justifications.

ISPAI Response:

- **Separate sub-1 GHz Cap:**
 - The goal of TRAI for prescribing band wise spectrum cap has been to ensure a level playing field for operators and to provide equal opportunity for acquiring spectrum in each band.
 - The proposal of a separate cap for Sub-1 GHz bands in a market of 7-13 operators will empower a single operator to acquire an excessive/disproportionate amount of

spectrum in a particular Sub-1 GHz band creating its monopoly/dominance over the spectrum in a specific band.

Therefore, proposal of a separate spectrum cap of Sub-1 GHz band will only serve the interest of a one/two operators and enable them to grab excessive spectrum in a particular Sub-1 GHz band, e.g. 800 MHz or 700 MHz band and therefore, it will defeat the very purpose of prescribing the intra-band spectrum cap.

- **2300 MHz & 2500 MHz as same band for intra-band cap:**
 - 2300 MHz and 2500 MHz bands should be considered as separate bands as treating them as one band for intra-band cap may result in one operator acquiring a disproportionate amount of spectrum in one of the bands viz. 2300 MHz/ 2500 MHz or consolidate spectrum in the 2300 MHz band, which will create one operator's monopoly over that particular spectrum band.

The current intra-band cap of 50% has effectively served the interest of consumer, competition and the Industry and should be extended to 700 MHz and 2500 MHz bands. It will avoid hoarding of spectrum in a particular band by a single operator

- **Overall spectrum cap needs a review and needs to be increased:**
 - Presently, there are 7-12 operators in each service area. The presence of high number of TSPs has led to excessive fragmentation of spectrum and the Indian TSPs are holding abysmally low quantum of spectrum.
 - In view of the aforesaid, the Industry is in dire need of consolidation. Recognizing this, TRAI has not only acknowledged the need for lesser TSPs in India, but also the need for promoting consolidation.
 - Such consolidation would be viable only if the present spectrum caps are relaxed without adversely affecting competition and minimum number of operators. The current spectrum cap is based on the notion that one operator should not hold beyond 25% of overall spectrum holdings irrespective of its revenue and subscriber market share. In contrast, spectrum holdings in India are quite skewed.
 - Large and serious operators need an access to more spectrum to serve their large customer base and the TRAI should at least consider increasing the cap for spectrum holdings and from 25% to 40% of the total holdings in all bands together. To ensure effective competition, the government may ensure that at any given point in time, at least four operators including one PSU operate in the market.
 - The current spectrum caps fail to take into account the amount of spectrum that would be required to provision a high quality broadband experience over wireless. Failure to increase, if not eliminate the current caps, would force TSPs who are currently

considering network expansion, to abandon its plans to offer broadband services, primarily on account of not being able to hold enough spectrum to ensure QoS, and eliminate the prospects of associated investments.

The overall cap for spectrum holdings therefore needs a review and may be increased from present 25% to 40% of the total holdings in all bands together.

10. Suggest an appropriate coverage obligation upon the successful bidders in 700 MHz band? Whether these obligations be imposed on some specific blocks of spectrum (as was done in Sweden and UK) or uniformly on all the spectrum blocks?
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11. Should it be mandated to cover the villages/rural areas first and then urban areas as part of roll-out obligations in the 700 MHz band?

ISPAI Response:

Rollout obligations as mandated for 800/ 900/ 1800 MHz band be mandated for 700 MHz band.

12. In the auction held in March 2015, specific roll-out obligations were mandated for the successful bidders in 800 MHz, 900 MHz, 1800 MHz and 2100 MHz spectrum bands. Stakeholders are requested to suggest: (a) How the roll-out obligations be modified to enhance mobile coverage in the villages? Which of the approaches discussed in para 2.58 should be used? (b) Should there be any roll out obligation for the existing service providers who are already operating their services in these bands. Please support your answer with justification.

ISPAI Response:

The rollout obligations shall be maintained as per latest NIA for March 2015 Auction

13. In the auction held in 2010, specific roll-out obligations were mandated for the successful bidders in 2300 MHz spectrum band. Same were made applicable to the licensee having spectrum in 2500 MHz band. Stakeholders are requested to suggest:
(a) Should the same roll-out obligations which were specified during the 2010 auctions for BWA spectrum be retained for the upcoming auctions in the 2300 MHz and 2500 MHz bands? Should both these bands be treated as same band for the purpose of roll-out obligations?

- (b) In case existing service providers who are already operating their services in 2300 MHz band acquire additional block of spectrum in 2300 or 2500 MHz band, should there be any additional roll out obligation imposed on them?

ISPAI Response:

The rollout obligations for 2300MHz and 2500MHz should be along the principles and approach followed for 800 MHz and 900/ 1800 MHz bands in the March 2015 Auction

14. Keeping sufficient guard band or synchronization of TDD networks using adjacent spectrum blocks are the two possible approaches for interference management. Considering that guard band between adjacent spectrum blocks in 2300 MHz band is only 2.5 MHz in a number of LSAs, should the network synchronization amongst TSPs be mandated or should it be left to the TSPs for the interference free operation in this band? Please support your suggestion with proper justifications.
&
15. In case, synchronization of the TDD networks is to be dealt by the regulator/licensor, what are the parameters that the regulator/licensor should specify? What methodology should be adopted to decide the values of the frame synchronization parameters?
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16. If synchronization of the TDD networks is ensured, is there a need for any guard band at all? If no guard band is required, how best the spectrum left as inter-operator guard band be utilised?

ISPAI Response:

Configuration and Synchronization should be mandated by the regulator/ licensor to ensure interference free operations. It is important to harmonize this band to prevent cross border interference.

17. Whether the ISP category 'A' licensee should be permitted to acquire the spectrum in 2300 and 2500 MHz bands or the same eligibility criteria that has been made applicable for other bands viz. 800 MHz, 900 MHz, 1800 MHz and 2100 MHz band should be made applicable for 2300 MHz and 2500 MHz bands also?

ISPAI Response:

Same eligibility criteria as prescribed in Mar, 2015 auctions.

18. Stakeholder are requested to comment on (a) Whether the guidelines for liberalisation of administratively allotted spectrum in 900 MHz band should be similar to what has been spelt out by the DoT for 800 and 1800 MHz band? In case of any disagreement, detailed justifications may be provided. (b) Should the liberalization of spectrum in 800, 900 and 1800 MHz be made mandatory?

ISPAI Response:

Liberalization guidelines for 900 MHz should be similar to that prescribed for 1800 and 800 MHz bands. Liberalization of spectrum should be optional as per the requirement of the operator.

19. Can the prices revealed in the March 2015 auction for 800/900/1800/2100 MHz spectrum be taken as the value of spectrum in the respective band for the forthcoming auction in the individual LSA? If yes, would it be appropriate to index it for the time gap (even if this is less than one year) between the auction held in March 2015 and the next round of auction and what rate should be adopted for indexation?
&
20. If the answer to Q.19 is negative, should the valuation for respective bands be estimated on the basis of various valuation approaches/methodologies adopted by the Authority (as given in Annexure 3.1) in its Recommendations issued since 2013 including those bands (in a LSA) for which no bids were received or spectrum was not offered for auction?

ISPAI Response:

Prices discovered in the last spectrum auction should be taken as valuation of spectrum in 800 MHz, 900 MHz, 1800 MHz & 2100 MHz bands as the prices have been discovered in March 2015 and are less than a year old.

21. Should the value of 700 MHz spectrum be derived on the basis of the value of 1800 MHz spectrum using technical efficiency factor? If yes, what rate of efficiency factor

should be used? Please support your views along with supporting documents/literature.

&

22. Should the valuation of 700 MHz spectrum be derived on the basis of other sub-GHz spectrum bands (i.e. 800 MHz/900 MHz)? If yes, what rate of efficiency factor should be used? Please support your views along with supporting documents/literature.

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23. In the absence of financial or non-financial information on 700 MHz, no cost or revenue based valuation approach is possible. Therefore, please suggest any other valuation method/approach to value 700 MHz spectrum band along with detailed methodologies and related assumptions.

ISPAI Response:

- As mentioned above, an early auction of this band will lead to a situation wherein the spectrum will be underutilized for several years and investments will not flow into network expansion. We, therefore, suggest that the Authority should recommend initiating the auction of this band only after the network and device ecosystem matures for this band.
- However, in case, the Authority takes a view that the auction of 700 MHz band be considered at present, per MHz value of 700 MHz band shall be 2x times the market price of 2300 MHz discovered in 2010, considering the eco system yet to be developed.

24. Should the value of May 2010 auction determined prices be used as one possible valuation for 2300 MHz spectrum in the next round of auction? If yes, then how? And, if not, then why not?

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25. Should the value of the 2300 MHz spectrum be derived on the basis of the value of any other spectrum band using the technical efficiency factor? If yes, please indicate the spectrum band and technical efficiency factor with 2300 MHz spectrum along with supporting documents.

ISPAI Response:

The final price for 2300 MHz band in May 2010 may be used as its valuation. No further indexation is required over the market discovered price considering the fact that the ecosystem in this band is not fully developed yet.

26. Should the valuation of the 2500 MHz spectrum be equal to the valuation arrived at for the 2300 MHz spectrum? If no, then why not? Please support your comments with supporting documents/ literature.

ISPAI Response:

Yes, the valuation of 2500 MHz shall be same as 2300 MHz band.

27. Is there any other method/approach than discussed above that could be used for arriving at the valuation of 700/800/900/1800/2100/2300/2500 MHz spectrum bands or any international auction experience/ approach that could be used for valuation of any of these bands? Please support your suggestions with detailed methodology and related assumptions.

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28. As was adopted by the Authority in September 2013 and subsequent Recommendations and adopting the same basic principle of equal-probability of occurrence of each valuation, should the average valuation of the spectrum band be taken as the simple mean of the valuations obtained from the different approaches/methods attempted for that spectrum band? If no, please suggest with justification that which single approach under each spectrum band, should be adopted to value that spectrum band.

ISPAI Response:

No other valuation method is required as the market price deduced in last auction is the most appropriate approach to arrive at the valuations.

29. What should be the ratio adopted between the reserve price for the auction and the valuation of the spectrum in different spectrum bands and why?

&

30. Should the realized prices in the recent March 2015 auction for 800/900/1800/2100 MHz spectrum bands be taken as the reserve price in respective spectrum bands for the forthcoming auction? If yes, would it be appropriate to index it for the time gap

(even if less than one year) between the auction held in March 2015 and the forthcoming auction? If yes, then at which rate the indexation should be done?

ISPAI Response:

Although, Authority has consistently adopted a ratio of 0.8 for arriving at the reserve price, we recommend, a ratio of 0.5 for arriving at the reserve price.