



6th November 2017

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Subject: Tata Teleservices Response to TRAI Consultation Paper No 10/2017 on "Auction of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300-3400 MHz and 3400-3600 MHz bands" dated 28th August 2017

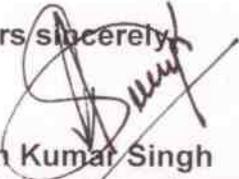
Dear Sir,

With reference to your Consultation Paper No 10/2017 dated 28th August 2017 on "Auction of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300-3400 MHz and 3400-3600 MHz bands" seeking comments of the stakeholders, please find attached herewith the comments of Tata Teleservices Limited and Tata Teleservices (Maharashtra) Limited (together referred as TTL).

We hope that our views will be given due cognizance. We would be grateful to address any further query in this regard.

Thanking you and assuring you of our best attention always.

Yours sincerely,


Arun Kumar Singh
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&
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Enclosure: As above

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Tata Teleservices Response to TRAI Consultation Paper No 10/2017 on “Auction of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300-3400 MHz and 3400-3600 MHz bands” dated 28th August 2017

- Q.1. (a) In your opinion when should the next access spectrum auction be held?**
- (b) If the spectrum auction is held now, should the entire spectrum be put to auction or should it be done in phased manner i.e. auction for some of the bands be held now and for other bands later based on development of eco system etc?**

Please give your response band wise and justify it.

TTL Comment:

- The proposed auction is 7th in the series starting from year 2010 when the first auction was held for spectrum in 2100 & 2300 MHz band. Last auction was held in October 2016, just a year ago. During the last auction, around 60% of spectrum remained unsold and most of the spectrum acquired in the said auction is yet to be deployed fully.
- Telecom Industry is presently undergoing consolidation phase as some of TSPs have filed for merger of their companies/licenses while a few licensees have traded their entire spectrum holding and closed their services.
- TSPs are coming under margin pressure with the steep fall in revenues and margins as competitive intensity increases in the sector. Spectrum is a major part of their cost. Being able to optimize its use and cost would be a key to operators being competitive. Many TSPs end up having spectrum which they are not able to use gainfully.
- Apart from 700 MHz band which was not sold due to high price the fact is that even with regard to other bands the industry response was muted from the heavily debt laden TSPs. Most of the spectrum that was sold was at RP. Even with regard to old bands the response got limited, showing clearly that industry was presently not in a position for fresh capex for the spectrum for voice services in the near term. The response to spectrum for 4G and LTE related bands would depend on the Government abandoning the current policy /



approach of collecting maximum revenues and adopting a policy of making available adequate quantity at a RP which is reasonable and which would strengthen competition and promote digital services in consumer interests. Therefore, not only the timing of the next auction but also the change in the present approach which emphasizes on maximization of Government revenues would need comprehensive review.

- **Therefore, in our opinion, it is not the right time for auction of spectrum.**
- In case Government still decides to conduct the auction in this financial year, it is suggested that entire available spectrum must be put to auction except quantum of spectrum surrendered by TTL in 800 MHz band. Tata Teleservices was permitted to surrender part of their spectrum in 800 MHz band without prejudice to its rights and contentions and pursuant there to, Tata Teleservices has completed the surrender. Since the matter is sub-judice, it is suggested that the quantum of spectrum surrendered by TTL should not be put to auction.
- Putting the entire available spectrum for auction will widen the bouquet with wide range of spectrum band and provide flexibility to TSP to pick and choose as per their future requirement.

Q.2. Do you agree that in the upcoming auction, block sizes and minimum quantity for bidding in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands, be kept same as in the last auction? If not, what should be the band-wise block sizes? Please justify your response.

TTL Comment:

- The principles established in October 2016 auction with regard to block size and minimum quantum of spectrum in 800, 900, 1800, 2100, 2300 and 2500 MHz bands to bid for by new/existing/expiring licenses has been reasonable and equitable. Therefore, there is no requirement for change of established principles with regard to block size and quantum of spectrum an operator requires bidding for as given in the NIA 2016 for spectrum in 800, 900, 1800, 2100, 2300 and 2500 MHz bands.

Q.3. What should be optimal block sizes and minimum quantity for bidding in (a) 3300-3400 MHz and (b) 3400-3600 MHz bands, keeping in mind both the

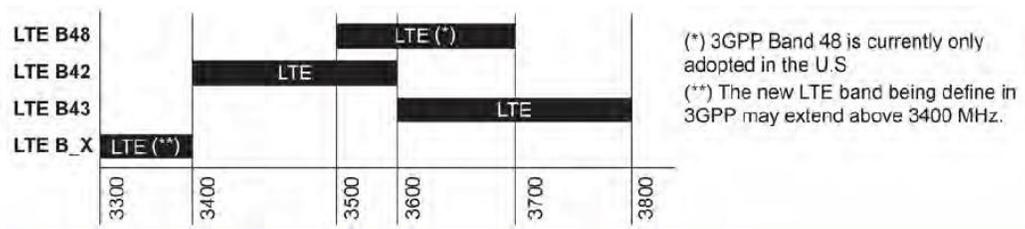


possibilities i.e. frequency arrangement could be FDD or TDD? Please justify your response.

TTL Comment:

- 3300 – 3600 MHz band is emerging as a candidate band globally for LTE-Advanced-Pro technology as well as a potential 5G band.
- A harmonized frequency arrangement facilitates economies of scale resulting in the availability of affordable equipment. Therefore, it is essential to follow an internationally harmonised band plan in each of the frequency bands.
- It is not yet clear what will be the optimum channel size for 5G. There are views that large contiguous blocks of spectrum wide may be desirable.
- 5G New Radio (5G-NR) is being designed to inherently take maximum advantage of wideband channels to deliver improved spectral efficiency, higher capacity and improved user experience. Wide contiguous spectrum assignments to operators in the order of 100 MHz or more will allow operators to reap the full benefits of the 3300-3600 MHz frequency range for 5G.
- Currently 3400 – 3600 MHz is defined by 3GPP as Band 42 for LTE where in 5,10,15 & 20 MHz bandwidths are recommended. However, in TDD systems, unpaired spectrum of 20 MHz is recommended to take full benefit of high speed 5G network. Below figure shows 3GPP channel arrangements.

Figure 5: 3GPP channel arrangements for LTE and its evolution.



- There is no standard band plan available as on date in the 3300-3400 MHz band.
- There is strong momentum for TDD systems in the 3400-3600 MHz band, one option could be to offer blocks in the sizes of 5 MHz or 10 MHz (unpaired) with



the condition that the bidder will have to bid for at least 20 MHz and maximum of 100 MHz.

Q.4. Do you think that the roll-out conditions for 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz stipulated in the last auctions held in October 2016 are appropriate? If no, what changes should be made in the roll out obligations for these bands?

Q5. Should there be any rollout obligations in 3300-3400 MHz and 3400-3600 MHz bands? If yes, what should these be? Please justify your response.

TTL Comment:

- Rollout obligation, as per the license agreement, has already been carried out by the existing service providers. There is no need of any additional rollout obligations to be imposed on some specific blocks of spectrum purchased through auction if the TSP has already covered the rollout obligation in any spectrum band using any technology.
- In case of new entrant in service, rollout obligation as envisaged in the NIA 2016 may be prescribed.

Q.6. Is there a need to prescribe spectrum cap in bands 3300-3400 MHz and 3400-3600 MHz? What spectrum cap provisions should be kept for 3300-3400 MHz and 3400-3600 MHz spectrum bands? Should these bands be treated as same or separate bands for the purpose of calculation of spectrum cap?

TTL Comment:

- In the current hyper-competitive environment, encouraging consolidation among players through M&A and monetization of spectrum through trading would be of benefit to Government, industry and the consumer. Though the current M&A guidelines as well as spectrum trading are progressive, one of the major hurdles being faced by TSPs in this process is breach of spectrum cap.
- The existing spectrum cap is 25% of the 'total spectrum assigned' in all bands put together and 50% within a given band in each service area. The objective of placing this restriction was to ensure that there was an adequate distribution of



spectrum to all players in the market and there was no situation of concentration of spectrum with just a few operators.

- We believe that in the current scenario of increased consolidation, these spectrum caps are no longer relevant and the Government should do away those.
- **We therefore request that spectrum caps as currently defined “ceiling of 25% of the ‘total spectrum assigned’ in all bands put together and 50% within a given band in each service area” be done away with.**

Q7. Whether the prices revealed of various spectrum bands in the October 2016 auction can 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 since the auction held in October 2016. If indexation is to be done then at what rate?

Q8. If the answer to above question is negative then, whether as per the practice adopted by TRAI in the previous valuation exercise, the valuation for respective spectrum bands be estimated on the basis of various valuation approaches/methodologies (Referred in Annexure 3.3) including those bands (in a LSA) for which no bids were received or spectrum was not offered for auction?

Q11. Whether the value of October 2016 auction determined prices be used as one possible valuation for 2300 MHz spectrum for the current valuation exercise? If yes, would it be appropriate to index it for the time gap since the auction held in October 2016? Please justify your response with supporting documents/ report(s), if any.

Q12. Whether the value of the 2300 MHz spectrum should be derived by relating it to the value of any other spectrum band by using technical efficiency factor? If yes, which band and what rate of efficiency factor should be used? If no, then which alternative method should be used for its valuation? Please justify your response with rationale and supporting documents.

Q13. Whether the valuation of the 2500 MHz spectrum should be equal to value of similarly placed spectrum band? If no, then which alternative method



should be used for its valuation? Please justify your response with rationale and supporting documents /report(s)/ detailed methodology, if any.

Q14. Whether the valuation of the 3300-3400 MHz spectrum bands and 3400-3600 MHz spectrum bands should be derived from value of any other spectrum band by using technical efficiency factor? If yes, what rate of efficiency factor should be used? If no, then which alternative method should be used for its valuation? Please justify your response with rationale and supporting documents.

Q15. Is there any other valuation approach than discussed above or any international auction experience/ approach that could be used for arriving at the valuation of spectrum for 700/800/900/1800/2100/2300/2500/3300-3400/3400-3600 MHz bands? Please support your suggestions with detailed methodology and related assumptions.

TTL Comment:

- These questions raise two issues i.e. firstly, adopting the principle of ADP (Auction Determined Price) in the last auction as the Reserve Price for the next auction. Secondly, the methodology for valuation be based on the same approach as followed by the TRAI in the last auction recommendations.
- The ADP criterion from the last auction would be wrong as there were different factors leading to 2016 spectrum auction. There were obvious distortions as independent analysts and experts had clearly shown that adequate spectrum was not offered where demand was there and RP for certain bands was excessively high that led to distortions in the market discovered price. Therefore, the last auction based ADP should not be considered as RP for next auction. The economic principle of demand and supply, conditions in relevant market may guide the TRAI in fixing the RP & ensuring adequate quantity of spectrum band being put to auction. The uppermost consideration should not be maximizing revenues for the Government, but meeting its basic duty to facilitate in finding reasonable market/clearing price that would take care of competition and would meet the growing needs for data services for development of offering digital services to the consumers. For any RP to be fixed TRAI may follow the methodology for each band and arrive at a rational that need to be close to market expectations and not based on outside assumptions derived from other countries.



- Secondly, it is important to consider the approach of the TRAI to valuation of different bands in line with the accepted principles i.e. “potential for services” from a particular band and its “propagation characteristics”. However, TRAI may take in to account the “state of existing ecosystems” and availability of infrastructure in the country, and also the affordability for the consumers as overriding factors in fixing the valuation.
- Spectrum prices should be rationalized by adopting holistic approach which truly reflects the business potential of the market for that particular band. Maximum Government revenues would be only through growth and not by excessive auction pricing design.
- We agree with the authority that as per the practice adopted by TRAI in the previous valuation exercise, the valuation for spectrum bands for new band 3300-3400 MHz and 3400-3600 MHz be estimated on the basis of various valuation approaches/methodologies.

Q9. Whether the value of 700 MHz spectrum should be derived by relating it to value of other bands by using technical efficiency factor? If yes, with which spectrum band this band be related and what efficiency factor or formula should be used? Please justify your views with supporting documents.

Q10. Else, what valuation approach should be adopted for the valuation of 700 MHz spectrum band? Please support your valuation approach with detailed methodology and related assumptions.

TTL Comment:

- We believe that a methodology that factors in the intrinsic value of spectrum for the type of services that it enables and consequently the market opportunity and business case it will support is the best way to determine the Reserve Price of any spectrum band including in this case the 700 MHz band.

Q16. Whether value arrived at by using any single valuation approach for particular spectrum band should be taken as the appropriate value of that band? If yes, please suggest which single approach/ method should be used. Please justify your response.



Q.17 In case your response to Q16 is negative, will it be appropriate to take the average valuation (simple mean) of the valuations obtained through the different approaches attempted for valuation of a particular spectrum band, as adopted by the Authority since September 2013 recommendations? Please justify your response.

TTL Comment:

- We agree that the average valuation (simple mean) of the valuations obtained through different approaches be taken as RP as it would have wider representation.

Q18. Is it appropriate to recommend Reserve price as 80% of the value? If not, then 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?

TTL Comment:

- Valuation exercise was done last time and RP was recommended by TRAI at a certain % of the valuation. However, in many LSA spectrum was sold at Reserve Price only and hence there is a need for a lower Reserve Price.
- In the previous consultation paper No. 06/2013 TRAI had published mean % of reserve price to auction price for spectrum auctions of various countries. The authority may follow this ratio between the reserve price and valuation of spectrum.

While the Authority in its CP has not asked for inputs on other issues, we are taking the liberty of presenting for the Authority's kind consideration, some additional points that we believe are both related and relevant to the broader issues of industry sustainability of which the issue of spectrum caps clarified above was an important part.

A. Removal of Ban of Two Years on Spectrum Trading:

- As per the current spectrum trading guidelines a TSP is allowed to trade auction acquired spectrum only after two years from the date of its acquisition. This stipulation was imposed to discourage non-serious TSPs from acquiring spectrum and making quick money by trading it.



- In the current situation of acute competition, most TSPs are making huge losses and are constantly re-visiting their business plans. Some TSPs have even chosen to exit. In such a situation the 2 year embargo on trading becomes an exit barrier which prevents scarce spectrum from being put back into use by some other operator.
- **Therefore, it is requested that minimum holding requirement of two years under Spectrum Trading Guidelines may be waived off, with immediate effect.**