



8th September 2014

Mr. Arvind Kumar,
Advisor (Network, Spectrum & Licensing),
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg (Old Minto road),
New Delhi - 110002

Subject: Tata Teleservices Response to TRAI Consultation Paper No 10/2014
on "Valuation and Reserve Price of Spectrum: Licences expiring in
2015-16" dated 7th August 2014

Dear Sir,

With reference to your Consultation Paper dated 7th August 2014 on "Valuation and Reserve Price of Spectrum: Licences expiring in 2015-16" 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
Additional Vice President – Corporate Regulatory Affairs
Tata Teleservices Limited
And
Authorized Signatory
For Tata Teleservices (Maharashtra) Limited

Enclosure: As above

CIN - U74599DL1995PLC066685

TATA TELESERVICES LIMITED

2-A, Old Ishwar Nagar, Main Mathura Road, New Delhi 110065
Tel.: +91 11 66558555, 66558666 Fax : +91 11 66558908, 66558909 website : www.tatateleservices.com
Registered Office : 10th Floor, Tower 1, Jeevan Bharati, 124 Connaught Circus, New Delhi-110001



Tata Teleservices Response to TRAI Consultation Paper No 10/2014 on “Valuation and Reserve Price of Spectrum: Licences expiring in 2015–16” dated 7th August 2014

Q.1. Please comment on the issue of making available additional spectrum in contiguous form (as discussed in para 2.5 and 2.13) in the 900 MHz and 1800 MHz band.

TTL Comment:

- TTL is of the view that contiguous spectrum in 900 & 1800 MHz band is essential for efficient use of liberalized spectrum.
- Government should make all out efforts to make available the maximum contiguous spectrum by redistributing the spectrum amongst TSPs whose licenses are expiring and other Government users to make more spectrum available in contiguous. Existing operators should not be disturbed by this exercise, as this will involve CAPEX outlay for re-alignment.
- In the 900 MHz Band, Government should explore the possibility of making available one additional block of 5 MHz contiguous spectrum in 5 LSAs by making available additional spectrum of 1 MHz in Maharashtra, Gujarat, Andhra Pradesh, Karnataka and 0.6 MHz spectrum in West Bengal.
- In the 1800 MHz band, of the total 104 MHz of spectrum that can be put up for auction, only 40 MHz is available in contiguous blocks of 5 MHz. Apart from Kolkata, Tamilnadu, Rajasthan and Orissa, no contiguous block of 5 MHz spectrum is available in other LSAs.

Q.2. Please comment whether only contiguous blocks of minimum 5 MHz spectrum should be put for auction.

TTL Comment:

- TTL is of the view that all spectrum becoming available with the Government on expiry of licenses in 2015-16 should be put to auction without any restriction like only contiguous blocks of minimum 5 MHz. In addition, Government should also try to make available additional spectrum, to the extent possible, for auction. DoT



should also coordinate with the Ministry of Defense to make available more spectrum for commercial use.

- Contiguous spectrum should not be precondition for auctioning of spectrum.

Q.3. What should be the block size to auction the spectrum in (a) 900 MHz band and (b) 1800 MHz band?

TTL Comment:

- In view of the limited availability of spectrum especially in 1800 MHz band, which is fragmented as well, TTL is of the view that a block size of 200 KHz in both 900 MHz and 1800 MHz bands should be offered for auction. Any attempt to prescribe larger block size such as 1 MHz or 5 MHz may lead to a situation wherein it will not be possible to auction all spectrum put up for auction.
- For instance, in 900 MHz band, if the block size is kept at 1 MHz, it would be practically impossible to put a total of 5 MHz (in 14 LSAs) of spectrum on auction. If the block size is kept at 5 MHz with this availability of 184 MHz in 18 circles, it would become impossible to auction around 44 MHz for these 17 LSAs. On the other hand, if a block size is kept at 200 KHz as suggested, entire 184 MHz may become available for auction.
- Further, block size of 200 KHz is suitable for all kind of operators and will offer the flexibility to deploy any kind of technology with it. It may be used for GSM and multiples of 200 KHz may be used for higher technologies. Issue of fragmentation of spectrum with this smaller chunk size may be addressed through the auction process design which allocates contiguous blocks to a winner of multiple blocks.

Q.4. What should be the minimum quantum of spectrum in the 900 MHz and 1800 MHz band that (a) a new entrant and (b) an existing licensee should be required to bid for?

TTL Comment:

- As the spectrum is liberalized, operators can use the spectrum for any service of their choice, for example, operators can use in future 2 MHz for one service and the balance 3 MHz for another service. As the operations are getting



liberalized, there is no need to impose any restrictions at the entry point. Further, with spectrum trading and sharing guidelines to be in place shortly, there could be possibilities for operators to get additional required quantity of spectrum.

- Therefore, there is no need for TRAI/ DOT to specify minimum quantum of spectrum in the 900 MHz and 1800 MHz band that (a) a new entrant and (b) an existing licensee should be required to bid.

Q.5. Should the licensee whose licences are due for expiry in 2015 and 2016 be treated as an existing licensee or as a new entrant?

TTL Comment:

- TTL is of the view that the licensees whose licenses are expiring should be treated as existing licensees.

Q.6. Should the valuation exercise for 1800 MHz spectrum be undertaken afresh for all the 22 LSAs?

TTL Comment:

- TTL is of the view that a fresh exercise may not yield the valuation that is significantly different from the TRAI's recommendations of 11 months ago in September, 2013. Hence, the valuation exercise should not be undertaken afresh for 1800 MHz band again for all 22 LSAs.

Q.7. Should the prices revealed in the February 2014 auction for 1800 MHz spectrum auction be taken as the value of 1800 MHz spectrum for the forthcoming auction in the respective LSA? Would the response be different depending on whether the forthcoming auction is conducted within one year of completion of last round of auction of February 2014 or later?

TTL Comment:

- Yes, the prices revealed in the February 2014 auction for 1800 MHz spectrum auction should be taken as the value of 1800 MHz spectrum for the forthcoming auction.



Q.8. If the prices revealed in the February 2014 auction for 1800 MHz spectrum are taken as the value of 1800 MHz for the forthcoming auction, would it be appropriate to index it for the time gap (even if this is less than one year) between the auction held in February 2014 and forthcoming auction? If yes, what rate should be adopted for the indexation?

TTL Comment:

- Indexation is not justified as indexation is premised on the assumption that as time progresses prices rise linearly. This does not hold true for all circumstances as experience has shown that price both increase and decrease depending on a variety of factors. In telecom specifically, the valuation of spectrum is a function of an assortment of complex factors and their interplay.

Q.9. What should be the criteria for defining a 'market clearing price'? Can the auction determined price be considered as market clearing price, when (i) the demand for spectrum is greater than the supply and when (ii) the demand is greater than or equal to the supply? Can the auction determined price be considered as the market discovered price?

TTL Comment:

- TTL is of the view that the price at which the spectrum was sold (be at the Reserve Price in certain LSAs or at a higher than Reserve Price in other LSAs) during the February 2014 auction should be treated as the 'Market Clearing Price'.

Q.10. Should the valuation of spectrum and determination of reserve price be done only for those LSAs where market clearing price was not achieved for 1800 MHz spectrum in February 2014 auction?

&

Q.11. Should the auction determined price for LSAs where market clearing price was achieved in February 2014, be taken as equal to the value of spectrum?

&

Q.12. Should the market determined price be taken as the value of spectrum in all LSAs?

TTL Comment:



- In conjunction with our response to Q.9 above and the fact that the spectrum was sold in all LSAs as recently as in February 2014, a market determined price for 1800 MHz already exists for all 22 LSAs that can serve as a basis for any forthcoming auction. There is no need of any new exercise for valuation of spectrum & determination of reserve price again for 1800 MHz band.

- Q.13. Should the value of spectrum in the LSAs where market clearing price was not achieved be estimated by correlating the sale prices achieved in similar LSAs where market clearing price was achieved with known relevant variables (paragraph 3.19)? If yes, please suggest which single variable is best suited for this purpose?**
&
- Q.14. Can multiple regression analysis be gainfully employed for this purpose given the limited number of sample data points?**
&
- Q.15. Should the value of spectrum in 1800 MHz band be assessed on the basis of producer surplus on account of additional spectrum?**
&
- Q.16. Is there any need for a change/revision of any of the assumptions adopted by the Authority in producer surplus model in the Recommendations of September 2013? Justify with reasons.**
&
- Q.17. Should the production function model based on the assumption that spectrum and BTS are substitutable resources be used as a valuation approach (as was done in the earlier valuation exercise)? Please support your response with justification/calculations/relevant data and results.**
&
- Q.18. Should the revenue surplus approach be used to arrive at the value of 1800 MHz spectrum? Do you agree with the assumptions made?**
&
- Q.19. Should the values contained in the Report of 8th February 2011 for spectrum up to 6.2 MHz be incorporated after indexation in the calculation of the average value of the 1800 MHz spectrum in the current exercise?**
&
- Q.20. Should the prices revealed in the February 2014 auction for 1800 MHz spectrum auction be used as one of the values of 1800 MHz spectrum?**
&
- Q.21. Apart from the approaches discussed as above, is there any other approach for valuation of spectrum that you would suggest? Please support your answer with detailed data and methodology.**



&

Q.22. Would it be appropriate to value 1800 MHz spectrum as the simple mean of the values thrown up in all the approaches? If no, please suggest with justification that which single approach should be adopted to value 1800 MHz spectrum?

TTL Comment:

- We recommend that auction determined price of last auctions can be considered as value of spectrum for forthcoming auctions in 1800 MHz band for all 22 LSAs.

Q.23. Should the value of 900 MHz spectrum be derived on the basis of the value of 1800 MHz spectrum using technical efficiency factors (1.5 times and 2 times) as discussed above?

&

Q.24. Should the economic efficiency approach as discussed above be used to calculate the premium for the 900 MHz spectrum, based on the additional CAPEX and OPEX that would be incurred on a shift from this band to the 1800 MHz band?

&

Q.25. Is there any other method that could be used for arriving at the valuation of the 900 MHz spectrum? Please support with detailed methodology.

&

Q.26. As in the case of the September 2013 Recommendations and adopting the same basic principle of equi-probability of occurrence of each valuation, should the average valuation of the 900 MHz spectrum be taken as the simple mean of the valuations obtained from the technical and economic efficiency approaches (and any other method)?

TTL Comment:

- Ideally the premium to be paid for 900 MHz over 1800 MHz should not be based only on the differential capex and opex. This would assume that the same services are to be provided by the bands in question and totally ignores the new services and products that the 900 MHz bands allow us to offer in the market.
- 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 /900 MHz band.

- Given that these bands also support 2G, a multiple of the 1800 MHz can be a base for such a reserve price and there is enough data on the capex/opex savings as well as the competitive advantage that 900 MHz offers over 1800 MHz in the 2G space.
- Also, during the last auction of 900 MHz in Delhi, Mumbai and Kolkata the ratio of winning price was 2.03, 2.07 and 2.66 respectively. This proves that valuation of 900 MHz is at least twice of 1800 MHz band.
- TTL recommend the valuation of 900 MHz should be at least 2 times the valuation of 1800 MHz band.

Q.27. Should the reserve price of 1800 MHz spectrum in the forthcoming auction be fixed equal to the realized price of 1800 MHz spectrum in the February 2014 auction? If not, what should be the ratio between the reserve price for the auction and the valuation of the spectrum?

&

Q.28. If the realized prices in the February 2014 auction for 1800 MHz spectrum is taken as the reserve price of 1800 MHz for forthcoming auction, would it be appropriate to index it for the time gap (even if less than one year) between the auction held in February 2014 and forthcoming auction? If yes, what rate should be adopted for the indexation?

TTL Comment:

- Indexation is not justified as explained in response to Q.8 above.
- 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. This % was ranging from 45% for 1800 MHz spectrum to 55% for 900 MHz spectrum. Hence TTL is of the view that RP should be fixed at 50% of the valuation (i.e 50% of last auction determined price).