



Reliance Jio

Infocomm Limited

RJIL/TRAI/2014-15/4026
08th September 2014

To,
Sh. Arvind Kumar,
Advisor (NSL),
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawaharlal Nehru Marg,
New Delhi - 110002

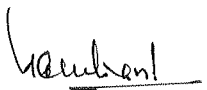
Subject: Comments on TRAI's Consultation Paper on Valuation and Reserve Price of Spectrum: Licences expiring in 2015–16.

Dear Sir,

Please find attached comments of Reliance Jio Infocomm Limited on the issues raised in the Consultation Paper on Valuation and Reserve Price of Spectrum: Licences expiring in 2015–16 released on 07.08.2014.

Thanking You,

Yours sincerely,
For **Reliance Jio Infocomm Limited,**


Kapoor Singh Guliani
Authorised Signatory



Encl.: As above.

**COMMENTS ON TRAI CONSULTATION PAPER on VALUATION AND RESERVE
PRICE OF SPECTRUM: LICENSES EXPIRING IN 2015-16**

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.

Spectrum, which is very important and crucial resource for mobile telecom services, is a finite and scarce national resource. Proliferation of new technologies and the growing demand for wireless broadband services has led to manifold increase in demand for spectrum. Therefore the government needs to ensure its effective distribution and optimal utilization.

Now that the spectrum allocated through auction is liberalised and the operators are allowed to use it for any technologies, it is essential that maximum amount of spectrum should be made available in contiguous form. Sufficient amount of spectrum in contiguous form will also attract more new entrants to participate in the auction.

We, in principle, therefore agree with the Authority's view of making available additional spectrum in contiguous form in the 900 MHz and 1800 MHz band. In order to maximize the availability of contiguous spectrum blocks for the forthcoming auction, the Government can explore possibility of harmonization of spectrum available for the auction with administratively allocated spectrum to the existing operators in respective Service Areas.

At the same time, we refer to the remarks in the consultation paper stating "*The Auction poses a very real problem for incumbent licensees i.e., the very continuity of their service in an LSA is subject to the outcome of the auction. The situation becomes more serious considering the fact that in most LSAs, there is not much spectrum available in the 1800 MHz band either. As can be seen, only in 7 LSAs, the quantum of spectrum that can be put up for auction in the 1800 MHz band is 5 MHz or more.*" However, we respectfully submit that the availability of sufficient spectrum especially for incumbent licensees will not be issue of concern in the forthcoming auction for the following reasons:

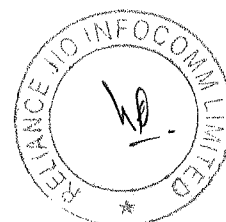
- It may be recalled that in its last recommendation, the Authority clearly stated that there should not be any reservation of spectrum for the Renewal Licensees in 900 or 1800 MHz bands. The Authority also recommended that no priority should be



accorded to these licensees in the bidding process and all bidders should be treated alike.

- The incumbent operators were therefore well aware about the policy regime on the spectrum holding at the time of their license expiry. These operators were also equally aware about the likely amount of spectrum that would be available in the subsequent auctions on their respective licenses expiry. As a result most of the incumbent operators, in the last auction itself, opted to acquire additional spectrum in the 1800 MHz band in the Service Areas where their licenses are expiring in 2015 and 2016. Therefore it may not be wrong to assume that the licensees, who did not acquire spectrum in the 1800 MHz band in the Service Areas where their licenses were expiring, had taken informed decision after evaluating all such factors.
- Based on the Table 2.7 and Table 2.8 of the Consultation Paper it is clearly evident that out of the 29 licenses due for expiry in 2015 and 2016 only 12 Service Areas are there where licensee needs to win spectrum to ensure continuity of service. Also the table 2.8 clearly suggests that number of licensee which needs to win the spectrum from continuity of services point of view is not more than 1 per service area.
- Out of these 12 Service Areas, except for West Bengal Service Area, all the service areas have at least 1 block of 5 MHz contiguous spectrum in either 900 MHz or 1800 MHz band where incumbent operators whose license are expiring & needs to win spectrum in order to continue its services. This is apart from the non-contiguous spectrum available in all these service areas and the incumbents do not necessarily require continuous spectrum for continuity of services. So it is clearly evident that there is no real threat for the incumbent operators in terms of the continuity of the services.
- Thus while making additional contiguous spectrum available will help the operators to bring new quality services to their customers but the upcoming auction can also be conducted with the present availability of the spectrum.

We also submit that the frequency rearrangement in the same band, amongst the licensees irrespective of whether the spectrum is liberalised or not, should not be permitted by the Government. The spectrum holdings which were allocated to the operators administratively and were bundled with their licenses were allocated with restrictive channel plan and can be deployed only for certain technology. If any frequency rearrangement amongst the licensees is resulting in contiguous spectrum blocks, which can be used for deploying any technologies, it is essential that these spectrum holdings need to get liberalized by paying the market determined price for the



same. Then only an equitable access and level playing field will be ensured for all operators.

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

As most of the IMT technologies require contiguous spectrum of sufficient quantity for delivery of high data rates, it is most desirable to make available contiguous blocks for auction to the extent possible.

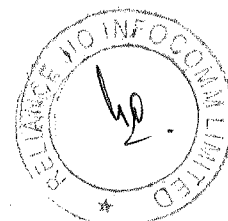
However we submit that the entire available spectrum should be put for the auction. Putting up the spectrum only in contiguous blocks will limit the amount of spectrum available for the auction which will impact the price discovery. In addition, it may block some of the existing licensees who have no immediate plan for the technology change and therefore can utilize even the non-contiguous spectrum based on their business requirements. In the future whenever these licensee wish to adopt next generation technology, the forward path will be available for such switchover with the help of spectrum reconfiguration, spectrum trading or spectrum sharing, since by that time almost all licensee would be having liberalized spectrum holdings acquired through the auctions conducted from time to time. More importantly, putting entire spectrum for the auction, contiguous as well as non-contiguous, will be a consistent policy regime as followed by the Government in previous auctions.

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

We believe that there is no need to make any changes in the spectrum band composition and the block size should be retained same as that of previous auction held in February 2014. Frequent changes in the block size of the spectrum in the same band may also pose a serious problem in future to interchange the liberalized spectrum amongst the licensees. The block size, both in 900 MHz and 1800 MHz should therefore be kept as that of the February 2014 auction i.e. 1 MHz in case of spectrum in 900 MHz band and 0.2 MHz in case of spectrum in 1800 MHz band.

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?

The minimum quantum of spectrum for the purpose of bidding should be kept as that of the February 2014 auction. A new entrant should be required to bid for a minimum of 5



blocks (or 5 MHz) in the 900 MHz band and bid for a minimum of 25 blocks (i.e. 5 MHz) in the 1800 MHz band. For an existing licensee, these requirements can be for minimum 3 blocks (i.e. 0.6 MHz) in the 1800 MHz and in case of 900 MHz band (i.e. the scenario which was not applicable in the February 2014 auction) the minimum number of blocks can be kept at 1 (i.e. 1 MHz). The bid for 5 MHz should get the highest priority for assignment of contiguous blocks, wherever available. Such design will ensure consistency in the auction rules and parity for the operators who participated in the previous auctions either as new entrants or existing licensees.

Based on the table 2.8 of the consultation paper, it can be seen that at present there are 12 service areas wherein existing licensee, who will be participating in the upcoming auction as a new entrant, needs to win spectrum to ensure continuity of services. Out of these 12 Service Areas, except for West Bengal Service Area, all the service areas have at least 1 block of 5 MHz contiguous spectrum in either 900 MHz or 1800 MHz band as well as non-contiguous spectrum and therefore the minimum quantum of spectrum for the bidding, as detailed above, will not lead to a situation wherein a renewal licensee will not be able to participate in the auction.

Only in case of West Bengal Service Area, where the availability of spectrum is 4.4 MHz in the 900 MHz band and 1.8 MHz in the 1800 MHz band, special consideration would be necessary due to these practical constraints. It is therefore proposed that only in case of West Bengal Service Area, all auction participants including the renewal licensee may also be considered as 'existing licensee' enabling them to submit bid for minimum 3 blocks (i.e. 0.6 MHz) in the 1800 MHz and 1 block (i.e. 1 MHz) in case of spectrum in the 900 MHz band. This approach will offer fair opportunity to the renewal licensee to ensure continuity of service.

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?

As submitted earlier we believe that there is no need to make any changes in the auction design that has been followed for earlier auction.

Moreover as per the last auction conditions existing UASL/CMTS/ UL (AS) licensees were treated as "New Entrant" for the frequency bands in which they do not hold spectrum. For the limited purpose of this provision, 900MHz band and 1800MHz band were treated as the same band. With this provision, the renewal licensees, who already have acquired spectrum in the 1800 MHz band in the last auction in the service areas where their licenses are due for expiry in the year 2015 and 2016, can participate in the auction as existing licensee. This provision will address the apprehension about bidders'



ability to bid for the spectrum with less than 5 MHz availability. For the balance cases such as the 1800 MHz spectrum in UP (W) Service Area, as long as there is no threat of discontinuation of services, there is no justification for amendment in the auction rules since similar situation was encountered by the bidders in the previous auction. It is very important to have a transparent and consistent regulatory framework and therefore frequent changes in the policy should be avoided by the Government.

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

The economic valuation of spectrum depends on numerous variables and there may not be any better method than actual market price discovery. Infact all the economic and technical analysis is conducted to assess what the likely market price of spectrum could be, which is best reflected by the outcome of an auction. It is pertinent to mention that the last auction was conducted hardly six months back in February 2014 and there haven't been any significant changes in the telecom sector that will have an impact on the valuation of the spectrum. In view of this we believe that there is no need to undertake fresh exercise for establishing valuation of spectrum in the 1800 MHz band.

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?

And

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?

The fresh valuation of the spectrum will not yield any significant difference in the spectrum price as compared to the February 2014 auction. Therefore, the prices revealed in the February 2014 auction for 1800 MHz spectrum auction can be taken as the value of 1800 MHz spectrum for the forthcoming auction in the respective LSA.

We believe that the last auction was conducted successfully only six months back and provided a good benchmark for market price of spectrum, subject to adjustment for time



value of money. An indexation in the auction determined price at bank rate may be considered to reflect the fair value post adjustment for time value of money and for the price to be fair for the successful bidders from the last auction.

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?

And

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?

And

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?

And

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

And

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?

We believe that the auction determined price can be considered as market clearing price in all such cases where there was some demand for spectrum. The price determined in February 2014 Auction should thus be considered as the value of spectrum in all such service areas. Such an approach only would also be fair to the successful bidders for spectrum in the last auction, especially given the time gap between the last auction and the next auction is likely to be around a year.



Q.14. Can multiple regression analysis be gainfully employed for this purpose given the limited number of sample data points?

And

Q.15. Should the value of spectrum in 1800 MHz band be assessed on the basis of producer surplus on account of additional spectrum?

And

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.

And

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?

And

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?

And

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?

And



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.

And

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?

Considering the limited time gap between the February 2014 auctions and the next auctions, and the fact that the market determined price is the best indicator of the economic value of spectrum, a fresh valuation exercise need not be conducted prior to the next auction to re-determine the likely economic value of spectrum.

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?

And

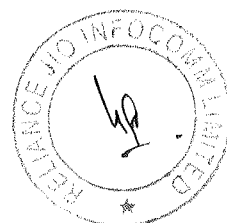
Q.24. Should the economic efficiency approach as discussed above be used to calculate the premium for the 900 MHz spectrum, based on the additional CAPEX and OPEX that would be incurred on a shift from this band to the 1800 MHz band?

And

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.

And

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)?

Since the market determined prices are not available for 900 MHz spectrum, except for 3 Metro Service Areas, the valuation for 900 MHz spectrum in these balance service areas can be arrived by the Authority taking into consideration relative technical efficiency as well as relative economic efficiency of the 900 MHz band over the 1800 MHz band. For this purpose results of February 2014 auction should be used for the support. Appropriate weightage might be provided by the Authority for valuation arrived by these different methods to arrive at the most probable valuation of the spectrum in the 900 MHz spectrum 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?

And

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?

Since the forthcoming auction will be conducted with a year of the last auction, the reserve price of 1800 MHz spectrum in the forthcoming auction should be fixed equal to the realized price of 1800 MHz spectrum in the February 2014 auction, adjusted for indexation, for all the service areas. The ratio between the reserve price for the auction and the auction price realized in the February 2014 auction should be kept at 1. Even the DOT was of the opinion during the 3G and BWA auctions that should auctions happen within a year, the reserve price for the new auction should be kept at the winning price from the previous auction.

The reserve price should be indexed for time value of money as the principle of time value of money is relevant even when the gap from the previous auction is less than a year. There is no rationale for applying the time value of money indexation only post one year from the time of the previous auction. The indexation should be done at the 12 month Government bond yield rate on the date of arriving at the reserve price.

