

## **Response to TRAI Consultation Paper**

### ***Valuation and Reserve Price of Spectrum, 23<sup>rd</sup> July , 2013***

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#### **Background**

The TRAI Consultation Paper Valuation and Reserve Price of Spectrum dated 23<sup>rd</sup> July , 2013 is timely. While it specifically deals with the issues related to spectrum made available as a result of the cancellation of licenses in the 1800 and 800 MHz band, TRAI has also used this opportunity to examine some larger issues.

Given the tumultuous history of spectrum allocations, before responding to the consultation paper, we would like to reiterate a few points to regarding spectrum management.

- a) Technological developments allow services that are first designed in a specific band become available across different and possibly multiple bands.
- b) When allocation of bands is considered, ALL bands likely to be available along with timelines must be provided.
- c) When timelines are provided, there should be a commitment to ensure that these are adhered to.
- d) Spectrum is a scarce natural resource with a strong economic value. It is increasingly a resource that will drive competitiveness of nations. As per the Supreme Court, the government holds this resource in trust for the citizens, it is imperative that government comes out with a framework for spectrum allocation that maximizes/optimizes benefits for citizens.
- e) The government must be accountable for any spectrum band for which there is commercial demand but lies unutilized with the government.
- f) There must be a move to adopt a framework of spectrum trading, so as to transition to more market oriented mechanisms.
- g) The DOT could easily make available 15MHz of spectrum in the 2100 MHz band by coordinating with the Ministry of Defence. There have been several write-ups on this including <http://epaper.financialexpress.com/c/1042661>.,

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<sup>1</sup> Views are personal

## Responses

1. **What method should be adopted for refarming of the 900 MHz band so that the TSPs whose licences are expiring in 2014 onwards get adequate spectrum in 900/1800 MHz band for continuity of services provided by them?**

### *Background*

- a. Is there a possibility of refarming the 900 MHz band, given that the Supreme Court has directed that all spectrum in the 1800 MHz be auctioned?
- b. In countries where the 900 MHz band has been refarmed, it has been done ‘in-situ’ (France, UK, Germany). In France, the existing operators had to pay a fee, while in other cases fees/charges were not applicable. Refarming was done on the basis of an application to the regulator in UK. We must keep the international context in mind, if we have to make our telecom sector globally competitive.
- c. The 2G voice services will continue to be a significant portion of the operators’ network minutes/data for a long time (UK, Germany, France, and many other European countries (Please see references at the end of the article). This situation is similar in many countries. Even in developed countries, GSM usage is expected to decline only after 3-4 years. It will be another 6-8 years by the time the new networks such as 3G, LTE are able to scale up. The business model of the operators for existing 900 MHz and 1800 MHz is going to change slowly, where they will slowly phase out the 2G networks. During this phase, networks need to be maintained. While existing owners of 900 MHz would have a technical advantage, over those who are in the above 1 GHz range, this can be minimized by allocating more sub 1 GHz spectrum.
- d. The TRAI Consultation paper mentions that it is important to get more sub 1 GHz bands, and therefore, it should also come up with a framework for making 700 MHz band in the near future. Then the ‘paucity’ of spectrum in the sub 1 GHz can be reduced. Service provision for LTE can then happen without the low availability of spectrum that characterized 2G.
- e. In many countries, licenses were granted for an indefinite period and in several others there was a presumption of renewal.
- f. Shifting 900 MHz to 1800 MHz has problems as this band (1800 MHz) is also amongst the most coordinated band for LTE. So if in the future, the government wants to shift LTE to 1800 MHz band, then will 2G services be ‘orphaned’?

- g. Due to the uncertain pace and path of technology development, it would be difficult for TRAI to specify the specific bands that will be refarmed into different uses. Also, this will go against the principle of technology and service neutrality.

***Response***

- There has to be a coordinated set of actions. In the 900 MHz band, there will be continuity issues if we refarm this spectrum right now for those operators whose licenses expire in 2014 or 2016. However, since their licenses will expire, in order to continue to provide services, their licenses should be auctioned but under the following conditions:
- The licenses come with the condition that all existing 2G customers who wish to continue or cannot go to 3G (as operators may not have rolled out networks in some areas) will be maintained say for 3-5 years.
- There will be third party oversight over the process of maintaining the customer base.
- All spectrum may be considered to be liberalized from this point onwards.
- Each operator gives away the difference in spectrum between their current holdings and 6.2 over a phased period. This will create spectrum for a new entrant.
- Since this additional spectrum was not acquired at a market price, there is no need to compensate operators for this.
- Any spectrum that remains with DoT must be made available for allocation.
- Spectrum sharing in all bands should be allowed between different operators.
- With these changes, licenses can be made perpetual.

- 2. In case spectrum is to be “reserved” for such TSPs, should it be restricted to licences expiring in 2014 (metros) or include licences expiring afterwards (LSAs other than metros)?**

No need to reserve spectrum; Same rationale as for point 1.

- 3. Is any restriction required to be imposed on the eligibility for participation in the proposed auction?**

Same as last time.

- 4. Should India adopt E-GSM band, in view of the diminishing interest in the CDMA services? If yes,**

We should adopt the EGSM band

**a. How much spectrum in the 800 MHz band should be retained for CDMA technology?**

**b. What are the issues that need to be addressed in the process?**

The issues have been identified on page 41 of the Consultation Paper.

**c. What process should be adopted for migration considering the various issues involved?**

Set up a coordination committee of different user groups which should be mandated to come up with a roadmap within a given span of time. The recommendations of this committee should be accepted. The committee should adopt consultative processes and open and transparent methods.

**5. Should roll out obligations for new/existing/renewal/quashed licenses be different? Please give justification in support of your answer.**

There should be uniform roll out conditions.

**6. Is there a need to prescribe additional roll-out obligations for a TSP who acquires spectrum in the auction even if it has already fulfilled the prescribed roll-out obligations earlier?**

No need

**7. What should be the framework for conversion of existing spectrum holdings into liberalised spectrum?**

At the time of renewal or auction, spectrum should be converted into “liberalized spectrum”. If some operators wish to convert their existing holding into ‘liberalized’, they would need to participate in auctions that DOT could hold at regular or pre-determined intervals.

**8. Is it right time to permit spectrum trading in India? If yes, what should be the legal, regulatory and technical framework required for trading?**

Spectrum trading should be allowed in India.

- a. There should be a framework that would allow spectrum trading for operators who own spectrum and have met their roll out obligations and have been in operation for three years at least.
- b. In addition to trading, sharing should be allowed.

- c. If the operator sells off the “entire” chunk of spectrum, then the buyer will have to bear all the associated roll out-obligations.
- d. The legal and regulatory framework should consider the role of TRAI in setting the rules of trading. It should specify the property rights (ie whether the roll-out obligations continue, if so, how is the amount of spectrum to be linked to residual obligations) of the spectrum. For example, today the spectrum that the operator does/can not use is to be returned back to the government. Rules regarding caps on spectrum holding of each operator and service area will need to be specified. Legal aspects as to who can/what type of entities may own the trading platform will need to be worked out. Technical requirements will include setting up the technical platform. The operational details including basis of payment for the same and sources of funding would need to be worked out.

**9. Would it be appropriate to use prices obtained in the auction of 3G spectrum as the basis for the valuation in 2013? In case the prices obtained in the auction of 3G spectrum are to be used as the basis, what qualifications would be necessary?**

No, it is not appropriate to use prices obtained in the 3G auction as a basis for valuation in 2013, as the economic scenario in the country, the availability of spectrum, and technological developments have taken place.

**10. Should the value of spectrum for individual LSA be derived in a top-down manner starting with pan-India valuation or should valuation of spectrum for each LSA be done individually?**

The valuation of each LSA is different and should be decided by the market.

**11. Is indexation of 2001 prices of 1800 MHz spectrum an appropriate method for valuing spectrum in 2013? If yes, what is the indexation factor that should be used?**

Same as point 9.

**12. Should the value of spectrum in the areas where spectrum was not sold in the latest auctions of November 2012 and March 2013 be estimated by correlating the sale prices achieved in similar LSAs with known relevant variables? Can multiple regression analysis be used for this purpose?**

The spectrum that was sold in the November 2012 auction was under specific situation and as mentioned in the TRAI Consultation Paper, it was a “distress sale”. Some of the operators had rolled out networks but had their licenses cancelled. They had to participate to get some returns on their business, despite the high reserve prices. Such prices may not reflect business valuations.

- 13. Should the value of spectrum be assessed on the basis of producer surplus on account of additional spectrum? Please support your response with justification. If you are in favour of this method, please furnish the calculation and relevant data along with results.**

Value of the additional spectrum should be based on the market prices which may be operationalized through a trading platform.

- 14. Should the value of spectrum in the 1800 MHz band be derived by estimating a production function on the assumption that spectrum and BTS are substitutable resources? Please support your response with justification. If you are in favour of this method, please furnish the calculation and relevant data along with results.**

Since spectrum in the 1800 MHz band is to be auctioned, the value of the spectrum would be derived by the market. If the idea is to arrive at a reserve price, then setting reserve price on an “administrative” cost basis could be considered. If there is competition in the auction, then the amounts of bids will be much higher than the reserve price (with proper design of auction) and the level of the reserve price would not matter. However, if there is no or little demand, then this reflects the business assessment of bidders and spectrum must be given away at the auction (possibly low price). In any case, if the spectrum is not allocated, then it is just fallow, resting with the DOT, with no economic outcomes. DoT/TRAI are responsible for ensuring that citizens get the fullest economic value of spectrum. DoT also should not be allowed to “hoard” spectrum.

On the other hand, to ensure that this mechanism is not used by private parties to hoard spectrum, there should be spectrum audits and roll out requirements. Any unused spectrum, say for a year, would go back to DoT. Also, the operators may be prohibited from trading this spectrum for a fixed period (say 3-5 years) or until they meet their roll-out requirements.

The question of parity with recent auctions then needs to be addressed. Since the reserve prices in those auctions were driven by linking those to the 3G auctions (without recognizing the uncertainty that had been created due to the allocations of spectrum in 2007-08 and hence the high bids) and the basis of “presumptive” loss by allocating spectrum at the 2001 prices, there was little participation. Almost all licenses have gone at the reserve price.

When auctions will be held at different points, then outcomes will be different as those would reflect the current prevailing situation.

If the outcomes of the current round of auctions also leads to a situation where bids begin at low reserve prices and do not go above the reserve price, then those who participated in the November 2012 and March 2013 auctions need to be compensated by adjusting their future payments against high reserve prices they may have paid. If bids in the forthcoming auctions reach or go beyond the reserve price levels in the November 2012 auctions, then there is no need to deal with the winning bidders of the November 2012 auctions.

- 15. Apart from the approaches discussed in the foregoing section, is there any alternate approach for valuation of spectrum that you would suggest? Please support your answer with detailed data and methodology.**

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- 16. Should the premium to be paid for the 900 MHz and liberalised 800 MHz spectrum be based on the additional CAPEX and OPEX that would be incurred on a shift from these bands to the 1800 MHz band?**

Is there sufficient bandwidth available (after auctioning all the 1800 MHz consequent to cancellations of licenses) for shifting all 900 MHz operators to 1800 MHz? Please see response to Point 1

- 17. Should the valuation of spectrum and fixing of reserve price in the current exercise be restricted to the unsold LSAs in the 1800 MHz band, or should it apply to all LSAs?**

What would be the reason for doing the valuations for those LSA where spectrum has already been sold? If it is to determine reserve price and compare it with that in recent auctions, then please see response in Point 14.

- 18.**
- a. Should annual spectrum usage charges be a percentage of AGR or is there a need to adopt some other method for levying spectrum usage charges? If another method is suggested, all details may be furnished.**
  - b. In case annual spectrum usage charges are levied as a percentage of AGR, should annual spectrum charges escalate with the amount of spectrum holding, as at present, or should a fixed percentage of AGR be applicable?**
  - c. If your response favours a flat percentage of AGR, what should that percentage be?**

Given that bidders and operators pay for spectrum through auctions, there should not be any spectrum charges.

**19. What should be the ratio adopted between the reserve price for the auction and the valuation of the spectrum?**

If market mechanisms are used for valuation of spectrum then it depends on the particular band, type of services, prior availability with the operator etc and is not known apriori. The reserve price is an indication of lack of competition and is a mechanism to get some minimum value for the spectrum, possibly reflecting the costs associated with administering it. Therefore, no fixed linkage exists between reserve price and valuation of spectrum. If there is competition, then bid amounts will quickly cross the reserve price. If there is no/little competition, then the market valuations are low and therefore setting reserve price high will not result in any entry. Setting high reserve prices will not attract entry as these may be above the valuation, or there is expectation that supply will increase in the future. (lower valuations) (Also see point 14)

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**References**

All accessed on August 12, 2013

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