

21st December 2015

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Subject:

Tata Teleservices Response to TRAI Consultation Paper No 06/2015 on "Valuation and Reserve Price of Spectrum in 700, 800, 900, 1800,

2100, 2300 and 2500 MHz Bands" dated 26th November 2015

Dear Sir,

With reference to your Consultation Paper dated 26<sup>th</sup> November 2015 on "Valuation and Reserve Price of Spectrum in 700, 800, 900, 1800, 2100, 2300 and 2500 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

Additional Vice President - Corporate Regulatory Affairs

Tata Teleservices Limited

And

**Authorized Signatory** 

For Tata Teleservices (Maharashtra) Limited

Enclosure: As above

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Tata Teleservices Response to TRAI Consultation Paper No 06/2015 on "Valuation and Reserve Price of Spectrum in 700, 800, 900, 1800, 2100, 2300 and 2500 MHz

Bands" dated 26<sup>th</sup> November 2015

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

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Q.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 utilized?

- Yes, the entire spectrum readily available with the DoT except quantum of spectrum surrendered by TTL must be put to auction.
- Fragmented allocation of spectrum across operators results in spectral inefficiency. To increase the availability of all 14 carriers for commercial use requires harmonization of entire spectrum in 800 MHz band.
- harmonization of spectrum in 800 MHz band to lower the wastage of spectrum. While so, retaining the inter-operator guard band is absolutely essential to avoid interference issues between Operators. The current exercise may not yield the desired result due to non-cooperation by Government owned BSNL who is insisting on retaining its current assignment resulting in wastage of carriers. This is also posing challenges in making the spectrum contiguous for other operators. It is suggested that BSNL be asked to:
  - Rearrange its carrier thereby reducing the number of guard bands so as to create maximum numbers of carriers available for auction.
  - Also, Authority may again reiterate for the release of one carrier by BSNL in 7 circles namely, Maharashtra, Karnataka, Tamilnadu, Madhya Pradesh, Rajasthan, Kerala and West Bengal.
- The above will result in creating maximum number of contiguous chunk of 5
   MHz and making the entire 17.5 MHz of spectrum available for commercial use.
- Based on above, TTL recommends the following:



- Whatever spectrum is readily available must be put to auction. 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.
- TRAI must ensure that BSNL participates in the above harmonization exercise and relocate its carrier so as to make available more carriers in 800 MHz band by reducing the number of inter-operator guard bands. Also BSNL must surrender one carrier in 800 MHz band in remaining 7 circles as explained above.
- Inter-operator guard band should be maintained to avoid interference issues between operators.

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

- The block size in the 700 MHz band should be 2x5 MHz for FDD.
- Based on above, TTL recommends that spectral efficiencies of 4G technologies typically kicks in when larger bandwidths are available with the operator. Given the under penetration of broadband in India, a minimum block size of 2x5 MHz for FDD in 700 MHz should be auctioned to achieve better efficiency and throughput & ensuring competition. This is the most suitable proposition as the entire spectrum in this band can be put to auction and accommodate 7 bidders with equal amount of spectrum.
- Q.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.



#### **TTL Comment:**

 Block size and minimum quantum of spectrum for new/existing/expiring licensees in 800/900/1800/2100 MHz:

### o 800 MHz Band

- The principles established in March 2015 auction with regard to block size and minimum quantum of spectrum 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 to bid for as given in the NIA 2015.
- As per clause 2.1 (a) of NIA 2015, the new entrants were required to bid for minimum of 5 MHz (paired) spectrum. Those licensees, whose permits were expiring in 2015-16 and did not hold any spectrum in 1800 MHz band through auctions held since November 2012, were required to bid of minimum of 5 MHz (paired). But, the licensees whose permits were expiring in 2015-16 and held any spectrum in 1800 MHz band won through auction since November 2012 were required to bid for minimum of 0.6 MHz (paired).
- While the above principle has been established for 1800 MHz in the March 2015 auction, there was no such clause for 800 MHz band, as there were no operators whose licenses were expiring and who had won spectrum in 800 MHz band during the last auction.
- However, the situation would be different in the forthcoming round of auction, wherein the operators like TTL, whose three licenses in Andhra Pradesh, Mumbai and Maharashtra circles are expiring in September 2017 and they have taken spectrum in these circles in the last auction in 800 MHz band. In this situation, as per the above principle of 1800 MHz band, as established in March 2015 auction, the operators' whose licenses are expiring and have acquired spectrum through previous auctions should be required to bid for minimum of 1.25 MHz in 800 MHz band instead of 5 MHz.



#### 1800 MHz:

- The quantum of spectrum available for auction in 1800 MHz band is limited to the extent spectrum becoming available from expiring licenses in 2016-18 i.e. 26.4 MHz and meager 5.4 MHz of balance spectrum left over after previous auction. In particular, reference made to Table 2.9 of Clause 2.17 of the TRAI Consultation Paper dated 26th November 2015 wherein the spectrum availability in Mumbai and Maharashtra has been shown as zero while in AP the spectrum availability is shown as 4.4 MHz. The harmonization exercise between Defence and DoT will result in realignment of frequencies and spectrum becoming available for auction. However, it may be noted that in the previous instances when the licenses of other operators were expiring, the Government had put into auction a large quantum of spectrum over and above what was becoming available from the expiring licenses. This resulted in competitive bidding among all participants including those whose licenses were expiring. By this act of the Government (putting substantial amount of spectrum into auction), all operators whose licenses were expiring succeeded in defending their allocation. In the interest of maintaining level playing field and similar rules of play in providing equal opportunity to the expiring licensees in the forthcoming auction, adequate quantum of spectrum over and above the quantum which becomes available through expiry of licenses should be put to auction.
- In the forthcoming auction, as we understand, hardly any spectrum is being made available over and above that would become available due to expiry of licenses thereby limiting the availability of spectrum in the 1800 MHz band to minimum.
- Even in the TRAI recommendation of 15<sup>th</sup> October, 2014, the Authority has observed that auction should be scheduled only after the supply constraints are removed and short-term fiscal imperatives should not be the primary motivating factor in scheduling the spectrum auctions.
- In case more spectrum is not made available, this may prove detrimental for some of players whose licenses are coming up for renewal. In view of this we strongly recommend following:
  - ❖ The Government must put more spectrum in 1800 MHz over and above what is becoming available due to expiry of licenses in the



auction to ensure that all especially the expiring licensees get reasonable opportunity to participate in the auction, as it happened in the past.

- ❖ The Government should wait and hold the auction when sufficient quantum of spectrum is made available in 1800 MHz to provide equal opportunity to the expiring licensees as was the case in the previous auctions.
- In view of limited availability of spectrum in all the circles we request the Authority that in 1800 MHz Expiring Licensees should be allowed to bid for a minimum of 0.6 MHz.

#### o 900 MHz Band

• 900 MHz spectrum is available only in 6 circles, ranging from 0.2 MHz to 4.6 MHz. Therefore, going by the above preposition on limited availability for 1800 MHz, we suggest the minimum quantum for 900 MHz should be kept at 0.2 MHz for both Existing and New Entrants.

### 2100 MHz Band

- Block size of 5 MHz paired spectrum for a minimum of one block for both Existing and New Entrants.
- In view of the above, TTL recommends the following:
  - In 800 MHz New entrants: 5 MHz; Existing & Expiring licensees holding spectrum in same band: 1.25 MHz.
  - o In 1800 MHz Expiring licensees: 0.6 MHz.
  - In 900 MHz New and existing licensees: 0.2 MHz.
  - o In 2100 MHz New and existing licensees: 5 MHz.

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



- Looking at the limited availability of spectrum and duplexing spacing requirement in India in 2300 and 2500 MHz bands, there is no possibility of FDD operations in these bands.
- During 2010 spectrum auction for BWA, 2300 MHz spectrum was auctioned in the TDD mode with a block size of 20 MHz and subsequently, 2500 MHz spectrum was allotted to state owned BSNL and MTNL in the same block size.
- In view of the above, TTL recommends that block size for 2300 and 2500
   MHz should be retained at 20 MHz in the TDD mode.
- Q.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?
- Q7. Is there any need to specify a separate spectrum cap exclusively for the spectrum in 700 MHz band?
- Q8. 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?
- Q9. 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.

# **TTL Comment:**

• The Authority has consistently maintained the spectrum caps of 50% in a particular band and 25% in overall access spectrum in all previous auctions to protect competition and level playing rules. Therefore, there is absolutely no justification to change the rules of play when our licenses are coming for renewal. Such a change would provide the dominant players an intended or unintended benefit that would lead to distortion in the level playing conditions to the expiring licensees. We would request the Authority not to change the rules mid-way at a time when our licenses are due for renewal.



- As on date, there is still a large quantum of spectrum under administrative allocation. With lot of spectrum still in administrative allocation status, raising ceiling from the current 25% cap and/or increasing or clubbing the cap of 50% in relevant spectrum bands goes against the principle of level playing field. Once entire administratively allocated spectrum has been put through auction cycle at least once, then making changes to the existing rules is not likely to disturb the level playing field.
- The proposed new formulae for calculating the spectrum cap by clubbing all bands in the Sub-1 GHz (i.e., 700, 800 & 900 MHz bands) is nothing but change of rules in the middle of the game. No change was introduced in earlier auctions and the operators participated depending upon the existing spectrum caps. Introduction of new spectrum band (700 MHz) does not make any case for changing the well established rules. TRAI's proposal would allow operators to acquire spectrum in either of the Sub-1 GHz bands and create monopoly in that band. This would also endanger the survival of those who have been in the industry for 20 years and whose licenses are coming up for renewal.
- The basic objectives of prescribing a spectrum cap remain valid today as they were before the availability of 700 MHz spectrum i.e., to discourage hoarding by the TSPs and more importantly to avoid adverse effects on competition. It is very likely that a Telecom Service Provider acquiring large holdings of spectrum through auctions and with new regime of M & A or trading it would lead to dominance of the incumbent and defeat the regulatory objective of ensuring level playing field and fair competition in the market.
- Moreover, in all previous auctions, 900 and 1800 MHz spectrum bands are considered same for all practical purposes, however, for calculating the spectrum cap these spectrum bands are treated separate individual bands. They are not combined together to arrive at an overall cap. In line with this established principle in previous NIAs, there is no need to combine the 700 MHz band with other Sub-1 GHz bands for calculation of spectrum cap.
- The objective behind spectrum capping is to ensure competition in the market by preventing large/big operators from acquiring large amount of spectrum, which they may not require but only hoard to prevent the small operators from effectively competing in the market. In this context reliance is placed on TRAI's Recommendation dated 02.07.2015, which were sought by the DOT pursuant to



this Hon'ble Supreme Court's order dated 14.05.2015. The relevant extract of the said TRAI Recommendation are quoted hereunder:-

- "...The Authority is of the considered opinion that the basic objective of prescribing a spectrum cap is to prevent a TSP from acquiring large holdings of spectrum through auction, M&A or trading, as it may lead to non-level playing field, disturbing the competition in the market. It cannot be left to the market forces alone to decide the maximum spectrum holding of a TSP. Therefore the Authority is of the view that the provision of cap should continue on the spectrum holding that a TSP may acquire or otherwise."
- Since it has been proved from the financial market behavior in the developed countries that even matured markets were subject to manipulation and necessitated intervention by their Governments. The telecom market in India is not so mature and, therefore, there is need to continue with the regulated approach with respect to spectrum related issues including spectrum ceiling as per existing regime stipulated by the TRAI.
- We agree with the Authority's views on spectrum cap dated 02.07.2015. In our view, there is no change in the situation from TRAI's last recommendations dated 02.07.2015 except addition of another spectrum band i.e. 700 MHz. In our view, addition of 700 MHz band does not warrant any modifications in the individual band-wise spectrum cap or total spectrum cap.
- Any move to calculate cap on the spectrum holding within all bands in sub-1 GHz frequencies, as suggested in the Consultation Paper, would compromise with the desired objective of fixing caps.
- In view of the above, TTL is of the view that:
  - Sub-1 GHz spectrum bands of 700, 800 & 900 MHz should not be combined to arrive at the 50% spectrum band calculation.
  - 50% spectrum cap should be imposed for 700 MHz as well.
  - The existing spectrum caps of 50% for individual spectrum bands, i.e., for 800 MHz, 900 MHz, 1800 MHz, etc., and the basis, on which these caps are arrived at, be retained.



- Over-all cap of 25% should be retained.
- Q10. 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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Q11. 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?

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- Q12. 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.

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- Q13. 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?



### **TTL Comment:**

- Rollout obligation as per the license agreement has already been carried out by
  the existing service providers. There is no necessity 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. Also, no
  additional rollout obligations for expiring licensees acquiring spectrum through
  auction.
- We feel that there is no necessity of any additional rollout obligation in 700 MHz spectrum. Rollout obligation should not be based on spectrum blocks and it should be taken together for all the spectrums held by an operator.
- There is no necessity of any modification in the rollout obligations as has been mandated to the Existing Licensees. TSPs will go the rural area as and when there is a business case for them. Rollout obligation have been taken care of by the service providers who are already operating in this band and hence there is no necessity of mandating further rollout obligation.
- Same rollout obligation which were specified in the 2010 auction for BWA spectrum be retained for 2300 MHz and 2500 MHz spectrum for the forthcoming auction. These two bands should be treated similar for the purpose of rollout obligation in the forthcoming auction.
- Q14. 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.

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Q15. 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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Q16. 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?

#### TTL Comment:

- The issue regarding sufficient guard band or synchronisation etc should be left to the service provider, who would take care of these aspects on mutual discussion with all concerned. We do not consider involvement of the licensor / regulator for the purpose of synchronization etc.
- Q17. 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?

### **TTL Comment:**

As 2300 and 2500 MHz band are broadband wireless access spectrum, the ISP category 'A' licensee should be permitted to acquire the spectrum in 2300 and 2500 MHz bands as this spectrum can be used by an ISP for providing internet services under its ISP license. If these spectrum bands are bid by ISPs for providing broadband wireless access services under ISP license, this should be outside the purview of Access Spectrum. Else, this will trigger cross holding restrictions contained in the Unified License guidelines.

### Q18. 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?

#### **TTL Comment:**

- TTL is of the view that guidelines for liberalization of administratively allotted spectrum in 900 MHz should be similar to what has been spelt out by the DoT for 800 and 1800 MHz bands.
- Liberalization of spectrum in 800, 900 and 1800 MHz should not be made mandatory and it should be left to individual operators as the operators need to factor in its business plan into consideration.
- Q19. 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?

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Q20. 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?

## **TTL Comment:**

• There is now greater need for keeping in mind the objectives of digital India programme of the Government. In this context the approach should move away from the concept of last Auction Determined Price (ADP) in fixing of the RP. It is necessary that RP should be fixed below the last ADP and objective should not be to generate revenue but promotional in order to achieving the goals of Digital India in a timely manner.



- The last Reserve Price was determined about a year ago and thus we suggest that same Reserve Price should be maintained for the forthcoming auction. The last ADP should not become the Reserve Price for the next auction as the price discovered in each auction depends upon different market conditions such as demand and supply, number of participants etc. Therefore, the application of logic that last ADP or more than that should be made RP for the next auction is misplaced as the conditions in two auctions would be different.
- In the forthcoming auction, as we understand, the supply will be constrained and thus RP should not be same as last ADP as some incumbents may play mischievous by inflating prices forcing smaller operators either to give higher price or opt out. Either way it will not be good for the fair competition.
- There is no need for any revaluation of the spectrum bands as the last auction
  was held only in March 2015 and has not completed even one year. Thus, the
  reserve price for spectrum in 800/900/1800/2100 MHz bands should be
  same as for the March 2015 auction.

Q21. 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.

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Q22. 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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Q23. 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.



- 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.
- TTL recommends the valuation of 700 MHz band should be same as that of 800 MHz band as both with similar technical efficiencies and eco system.

Q.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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Q.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.

### **TTL Comment:**

- The technology and eco system for 2300 MHz spectrum band has changed from the last auction held in 2010. New parameters are available as some of the operators have set up infrastructure in this spectrum band and services are being offered.
- In view of this, TTL recommends that a fresh exercise for valuation of 2300 MHz band be carried out to arrive at base price for the next auction.
- Q.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.

# **TTL Comment:**

 Since propagation properties of 2300 and 2500 MHz bands and eco system existing in these bands are similar, therefore we are of the view that the valuation of 2500 MHz should be same as that of 2300 MHz band.



- The valuation of 2500 MHz band should be same as 2300 MHz band as arrived from response to Question number 25 above.
- Q27. 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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Q28. 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.

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Q29. 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?

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Q30. 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?

#### TTL Comment:

• There is no need for any revaluation of the spectrum bands as the last auction was held only in March 2015 and has not completed even one year. Thus, the reserve price for spectrum in 800/900/1800/2100 MHz bands should be same as for the March 2015 auction.