



भारतीय दूरसंचार विनियामक प्राधिकरण
TELECOM REGULATORY AUTHORITY OF INDIA
भारत सरकार/Government of India



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No.103-5/2015-NSL-II

Dated: 2nd July 2015

To

The Secretary
Department of Telecommunications,
Sanchar Bhawan,
Ashok Road,
New Delhi - 110 001

Subject: Issues relating to Spectrum Cap and minimum spectrum holding by Telecom Service Providers (TSPs) as follow up of SC interim order dated 14.05.2015 - Reg.

Ref: Letter No. L-14006/03/2015-NTG dated 29th May 2015

Through the above referred letter, DoT had requested TRAI to provide its views on the issues related to the points (d) and (e) of the above referred order of Hon'ble Supreme Court. Further, DoT had also requested TRAI to send its views at the earliest stating that the affidavit in the Hon'ble Supreme Court is to be filed within 6 weeks from 14th May 2015.

2. Before framing its response, the Authority decided to seek the comments of Telecom Service Providers (TSPs) on the issues involved. Accordingly, all the TSPs were requested on 4th June 2015 to give their comments on the issues raised by the DoT.
3. The Authority, after due deliberations on the comments received from TSPs, has finalized its response which is enclosed herewith.
4. In keeping with practice, a copy of this letter, along with the response, is being placed on the website of TRAI www.trai.gov.in.

This letter issues with the approval of the Authority.

Encl: As above


(Sudhir Gupta)
Secretary, TRAI

**ISSUES RELATING TO SPECTRUM CAP AND MINIMUM SPECTRUM
HOLDING BY THE TELECOM SERVICE PROVIDERS (TSPs) AS
FOLLOW UP OF SC INTERIM ORDER DATED 14.05.2015**

Background

- 1.1 The Hon'ble Supreme Court in its order dated 14.05.2015 in the Transfer Case (Civil) Nos. 43/2015 (WP No. 1635/2015 filed by M/s Reliance in Delhi High Court, 64/2015 (WP No. 53/2015 filed by M/s Reliance in Tripura High Court) and 65/2015 (WP No. 6176/2015) has asked the Government to furnish an affidavit covering the following points:
- (a) After completion of the present auction, what is the quantum of spectrum available with the Union of India?
 - (b) What is the possibility of getting the non-vacating spectrum from the defence band and within what time?
 - (c) Whether an auction can be held in respect of the available spectrum, regard being had to what has been stated in (a) and (b) above?
 - (d) Whether in the auction that is going to be held, the concept of capping would still remain and, if so, what would its formula and how it would be interpreted and applied? While calculating the cap, if that exercise is undertaken, whether the commercially available spectrum should be included in the computation of such caps?
 - (e) The successful bidders who have got less than five and in case they fail in the next auction, how they can deal with the spectrum? To elaborate, though they can surrender or trade any spectrum or share the same as per existing guidelines, do they have a choice to hold it or the Union of India would take steps in that regard as per law.

1.2 The DoT, through a letter dated 29.05.2015 (**Annexure**), has requested TRAI to provide its comments on the following issues related to the points (d) and (e) of the above referred order of Hon'ble Supreme Court.

a) Related to Point No. (d)

- (i) Whether the capping should still remain and, if so, what should be its formula and how it should be interpreted and applied?
- (ii) While calculating the cap, if the exercise is undertaken with existing methodology, whether the commercially available spectrum, which is available with the department and not put to auction, should be included in the computation of such caps?

b) Related to Point No. (e)

- (i) The successful bidders who have got less than 5 MHz and in case they fail in the next auction, how they can deal with the spectrum?
- (ii) Whether do they have a choice to hold it or the department would take steps to take back such spectrum considering that no economic viable services can be provided with a spectrum holding less than 5.0 MHz? If so, TRAI may suggest the terms and conditions for taking back such spectrum.

1.3 For formulating its comments, all the TSPs were requested to provide their views and suggestions on the above referred points latest by 15.06.2015.

SPECTRUM CAP

1.4 On the issue raised in point (d) of the DoT's reference, majority of the TSPs were of the opinion that the spectrum cap should be retained. One TSP, who was of the view that the spectrum cap

should not be imposed, argued that since the spectrum is now assigned only through auction, final selling price of the spectrum, given the competitive nature of the market, is determined on the basis of business requirements and the commercial value of the spectrum. Such factors in fact serve the function of a cap and provide suitable safeguards against operators acquiring extra spectrum for hoarding. Therefore, in view of the TSP, only the market forces should determine and limit the spectrum that an operator buys.

- 1.5 On the issue of what should be the formula to determine the spectrum caps, most of the TSPs were in favour of continuing with existing 25% overall cap and 50% band specific cap on the spectrum holding of any TSP. One TSP has submitted that the cap for spectrum holdings be increased from 25% to at least 40% of the total holdings in all bands together and from 50% to 60% for spectrum in a particular spectrum band. Another TSP has submitted that by virtue of holding spectrum in any particular band does not give any TSP significant power as long as such spectrum holding is within the overall cap. Therefore, as per that TSP, band-wise cap should be done away with and only overall spectrum cap should remain.
- 1.6 On the methodology for calculating these spectrum caps and whether the commercially available spectrum, which is available with the department and not put to auction, should be included in the computation of such caps, one TSP submitted that the entire spectrum available with DoT for commercial use should be counted for the computation of spectrum cap as non-inclusion of all commercially available spectrum (available with the department and not put to auction) limits the ability of operators to buy spectrum in appropriate bands. Some of the TSPs were of the view that a spectrum cap, once notified, should not be reduced subsequently, irrespective of the subsequent

developments that may occur in the form of surrender of spectrum etc. Some TSPs suggested that the surrendered spectrum should also be counted for the computation of spectrum caps, even if it is not being auctioned. One TSP suggested that the unsold spectrum in an earlier auction should be counted for determining the spectrum cap.

- 1.7 The Authority has observed that in its response dated 3rd November 2011 on the back-reference of the DoT on its recommendations on 'Spectrum Management and Licensing Regime' dated 11th May 2010, the Authority had recommended that *"Consequent upon the merger of licences in a service area, the total spectrum held by the Resultant entity shall not exceed 25% of the spectrum assigned, by way of auction or otherwise, in the concerned service area in case of 900 and 1800 MHz bands. In respect of 800 MHz band, the ceiling will be 10 MHz. In respect of spectrum in other bands, relevant conditions pertaining to auction of that spectrum shall apply."*
- 1.8 The Government, through a Press Statement dated 15-February-2012, *inter-alia* brought out that *"Consequent upon the merger of licences in a service area, the total spectrum held by the Resultant entity shall not exceed 25% of the spectrum assigned, by way of auction or otherwise, in the concerned service area in case of 900 and 1800 MHz bands. In respect of 800 MHz band, the ceiling will be 10 MHz. In respect of spectrum in other bands, relevant conditions pertaining to auction of that spectrum shall apply."* This was same as was recommended by the Authority in its recommendation of 3rd November 2011.
- 1.9 In its recommendations on 'Auction of Spectrum' on 23rd April 2012, the Authority recommended that *"The limit for acquisition of spectrum shall be 50% of the spectrum assigned in each band in the respective service area and 25% of the total spectrum assigned in all bands put together in each service area."*
- 1.10 In its recommendations on 'Spectrum Valuation and Reserve Price' dated 9th September 2013, the Authority had stated that

“The Authority agrees with the view expressed by a number of stakeholders that there should be a uniform cap for spectrum holding per LSA irrespective of whether the spectrum is obtained by trading, spectrum auction or Merger & Acquisition. There should be no distinction between spectrum transferred through an M&A transaction or traded directly in the market. Accordingly, the Authority recommends that trading transactions should be subject to the spectrum cap of 50% of the spectrum in a band and 25% of the total commercial spectrum assigned in an LSA.” (Para 6.34 and 6.35 of the recommendations)

1.11 The DoT issued the Guidelines on Merger and Acquisitions of Licences on 20th February 2014. As per these guidelines,

“Consequent upon the implementation of scheme of compromises, arrangements or amalgamation and merger of licenses in a service area thereupon, the total spectrum held by the Resultant entity shall not exceed 25% of the total spectrum assigned for access services and 50% of the spectrum assigned in a given band, by way of auction or otherwise, in the concerned service area. The bands will be as counted for such cap in respective NIAs for auction of spectrum. In respect of 800 MHz band, the ceiling will be 10 MHz. Moreover, the relevant conditions pertaining to auction of that spectrum shall apply. In case of future auctions, the relevant conditions prescribed for such auction shall be applicable. However, in case transferor and transferee company had been allocated one block of 3G spectrum through the auction conducted for 3G/BWA spectrum in 2010, the resultant entity shall also be allowed to retain two blocks of 3G spectrum in respective service areas as a result of compromises, arrangements and amalgamation of the companies and Transfer/Merger of various categories of Telecommunication service licences/authorization under Unified Licence (UL), being within 50% of spectrum band cap.”

1.12 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 through auction or otherwise.

- 1.13 As per the existing provisions, a cap of 25% of the 'total spectrum assigned' in all bands i.e. 800/900/1800/2100/2300/2500 MHz band put together and 50% within a given band in each LSA is applied for total spectrum holding by each operator. For the purpose of calculation of the cap in the auction as per the NIA, spectrum put to auction is included in the 'total spectrum assigned'.
- 1.14 The Authority examined the views of all the TSPs and the provisions of various NIA issued till date. The Authority is of the opinion that at present there is no need to modify the existing spectrum cap (50% of the spectrum assigned in each of the 800/900/1800/2100/2300/2500 MHz and 25% of the total spectrum assigned in all these bands put together in each service area).
- 1.15 On the methodology of calculating the spectrum cap, the Authority is of the opinion that all spectrum assigned to the TSPs including any spectrum which was put to an auction but remains unsold, spectrum which was assigned but subsequently surrendered by the TSP or taken back by the Licensor and spectrum put to auction should be counted. However, any spectrum out of the above will not be taken into calculation, if the Government assigns it for non-commercial purpose e.g. assignment to Defence.
- 1.16 The Authority is also of the view that the spectrum which may become available to the WPC/DoT for commercial use after its refarming from other users such as Defence at different point of

time should not be counted for determining the spectrum caps until it is put to auction by the DoT.

- 1.17 The Authority is also of the view that telecom being an evolving sector, review of such policy decisions such as spectrum cap is a continuous process. The Authority may review it at an appropriate time like introduction of new spectrum bands, additional spectrum released for commercial purpose or if any major development takes place.

Minimum Spectrum Holding of a Successful Bidder in a Band

- 1.18 TSPs were also requested to send their comments on the second set of issues i.e. (a) the successful bidders who have got less than 5 MHz and in case they fail in the next auction, how they can deal with the spectrum? And (b) whether do they have a choice to hold it or the department would take steps to take back such spectrum considering that no economical viable services can be provided with a spectrum holding less than 5.0 MHz? If so, TRAI may suggest the terms and conditions for taking back such spectrum.
- 1.19 Most TSPs were of the view that in case any successful bidder, holding less than 5 MHz in a LSA, is unable to acquire additional spectrum in subsequent auctions, there is no need for the Government to take back the spectrum. While it is not possible to provide meaningful services in new technologies (3G and 4G) with less than 5 MHz contiguous spectrum, GSM services are still being provided by operators with less than 5 MHz contiguous spectrum. These TSPs further submitted that the policy on spectrum sharing and trading is in the pipeline and expected to be released by DoT very soon; therefore there should not be any requirement to hold minimum 5 MHz in a service area. A few TSPs suggested that the TSP should have an option of returning

the spectrum to the Government at the last determined market price.

1.20 The Authority concurs with the views of the TSPs that the Government should not take back the spectrum acquired by a TSP in an auction, even if its spectrum holding is less than 5 MHz in any band. There is no denying that 5 MHz is the minimum amount of spectrum required to ensure that any technology can be deployed efficiently with the allocated spectrum. The new technologies such as WCDMA, HSPA, HSPA+, LTE etc can be deployed efficiently only with minimum 5 MHz spectrum. Therefore, it is desirable that a new entrant takes minimum 5 MHz of spectrum.

1.21 However, voice services using GSM/CDMA technologies can be provided in 800/900/1800 MHz bands with less than 5 MHz spectrum and additional spectrum would be required only when the traffic increases beyond a point. Keeping this in view, the Authority in its recommendations on "Valuation and reserve price of Spectrum: Licences expiring in 2015-16 dated 15th October 2014 in para 2.78 & 2.79 has observed-

"On the issue of specifying a minimum quantity of spectrum that a bidder is required to bid for in 900 and 1800 MHz band, stakeholders have suggested various quantum. In the auctions held in February 2014, minimum requirement to bid was kept as 2x5 MHz in the 900 MHz band for the new entrants and the 'expiry licensees' were treated at par with new entrant. Ideally, the Authority would like to retain the minimum spectrum holding as 2x5 MHz as it provides the flexibility to the TSPs to launch any mobile technology. However, keeping in view the limited availability of spectrum and the context of spectrum as discussed in paras 2.5 to 2.10, the Authority would like to revisit the issue.

If a requirement of acquiring 2x5 MHz is retained in the 900 MHz band, then only in 5 LSAs¹⁴, the number of successful bidders can be one more than the number of 'expiry licensees'; in the remaining 13 LSAs, successful bidders can at the most be equal to 'expiry licensees'. Certainly, this would put the 'expiry licensees' in a risky situation and also reduce the chances of the entry of a new entrant. This situation surely cannot be a desirable one. At present, all the 'expiry licenses' are providing 2G services using the spectrum in 900/1800 MHz band. There are millions of voice-customers being catered to by them. Although the

spectrum that is being put to auction is liberalized spectrum, it is quite likely that the incumbent TSPs will continue voice services in the near future. Therefore, even if their spectrum holding is less than 5 MHz, continuity of 2G services can be ensured. Moreover, it is just the minimum quantity of spectrum that bidders need to bid for. There is no restriction on the quantum of spectrum that they wish to acquire¹⁵. Therefore, the Authority is of the view that for the upcoming auctions, the minimum quantity that a bidder is required to bid for should be kept as 2x3.6 MHz in the LSAs where spectrum availability is 10 MHz or more (taking into account 1.2 MHz of BSNL as recommended by the Authority) in the 900 MHz band. In the remaining LSAs, minimum quantity may be kept as 2x2.4 MHz; and this would be uniformly applicable for 'expiry licensee' as well as new entrants."

- 1.22 The Authority is of the opinion that Licensees should be able to decide for themselves whether or not there is a business case for them to hold on to the spectrum. Moreover, once the guidelines of spectrum sharing and spectrum trading are notified by the Government, the TSPs will have alternate options to manage their spectrum holding. Therefore, the Authority is of the opinion that the Government should not take back spectrum assigned to TSP even if it is less than 5 MHz in any band.

Government of India
Ministry of Communications and IT
Wireless Planning and Coordination (WPC) Wing
Sanchar Bhawan, 20, Ashok Road, New Delhi - 110001

No.L-14006/03/2015-NTG

Dated: May 29, 2015,

To,

The Secretary
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg (Old Minto Road)
New Delhi-110002

Subject: Consulting TRAI on the issues relating to Spectrum Cap and minimum spectrum holding by Telecom Service providers (TSPs) as follow up of SC interim order dated 14.5.2015- reg.

Sir

The undersigned is directed to refer the point (d) and (e) of the Hon'ble Supreme Court order dated 14.05.2015 (copy enclosed at Annexure-I) in the Transfer Case (Civil) Nos. 43/2015 (WP No. 1635/2015 filed by M/s Reliance in Delhi High Court), 64/2015 (WP No. 53/2015 filed by M/s Reliance in Tripura High Court) and 65/2015 (WP No. 6176/2015 filed by M/s Bharti Airtel in Karnataka High Court).

2. Point No. (d):

Whether in the auction that is going to be held, the concept of capping would still remain and, if so, what would its formula and how it would be interpreted and applied? While calculating the cap, if that exercise is undertaken, whether the commercially available spectrum should be included in the computation of such caps?

2.1 In light of SC order, TRAI is, therefore, requested to suggest on the following:

- The capping should still remain and, if so, what should be its formula and how it should be interpreted and applied?
- While calculating the cap, if the exercise is undertaken with existing methodology, whether the commercially available spectrum, which is available with the department and not put for auction, should be included in the computation of such caps?

2.2 A detail note on spectrum cap is at annexure -II.

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2/6/15

3. Point No. (e)

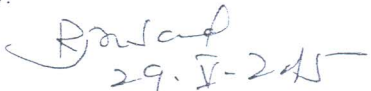
The successful bidders who have got less than five and in case they fail in the next auction, how they can deal with the spectrum? To elaborate, though they can surrender or trade any spectrum or share the same as per guidelines, do they have a choice to hold it or the Union of India would take steps in that regard as per law.

3.1 In light of SC order, TRAI is, therefore, requested to suggest on the following:

- The successful bidders who have got less than 5 MHz and in case they fail in the next auction, how they can deal with the spectrum?
- Whether do they have a choice to hold it or the department would take steps to take back such spectrum considering that no economic viable services can be provided with a spectrum holding less than 5.0 MHz. If so, TRAI may suggest the terms and conditions for taking back such spectrum?

3.2 A detail note on Notice Inviting Application (NIA) dated 9.1.2015 on quantum of spectrum to be bid by bidders is at Annexure-III.

4. TRAI's views on the above issues is required at the earliest as the affidavit in the Supreme Court has to be filed within six weeks from 14.5.2015.


29.V-2015
(R. B. Prasad)
Joint Wireless Adviser

ITEM NO.18

COURT NO.5

SECTION XVIA

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

Transfer Case (Civil) No(s). 43/2015

RELIANCE TELECOM LTD & ANR.

Petitioner(s)

VERSUS

UNION OF INDIA & ANR.

Respondent(s)

WITH

T.C.(C) No. 64/2015

T.C.(C) No. 65/2015

Date : 14/05/2015 This petition was called on for hearing today.

CORAM :

HON'BLE MR. JUSTICE DIPAK MISRA

HON'BLE MR. JUSTICE PRAFULLA C. PANT

For Petitioner(s) Mr. Ranjit Singh, SG
Mr. P.S. Narsimha, ASG
Mr. Ajay Sharma, Adv.
Ms. Binu Tamta, Adv.
Mr. Dhruv Tamta, Adv.
Mr. K. Parameshwar, Adv.
Mr. Ritin Ray, Adv.
Mr. D. S. Mahra, Adv.

For Respondent(s) Dr. A.M. Singhvi, Sr. Adv.
Mr. Gopal Jain, Sr. Adv.
Mr. Harsh Kaushik, Adv.
Mr. Abhay Chattopadhyay, Adv.
Ms. Chinmayee Chandra, Adv.
Ms. Stephanie V. Sonawane, Adv.
Ms. Nidhi Ram, Adv.
Mr. Zafeer L. Hussain, Adv.
Mr. Gaurav Sharma, AOR

Mr. P. Chidambaram, Sr. Adv.
Mr. Gopal Jain, Sr. Adv.
Ms. Shaily Bhasin, Adv.
Mr. Chaitanya Anand, Adv.
Ms. Stephanie Sonawane, Adv.
Mr. E.C. Agrawala, Adv.

Ms. Manjul Bajpai, Adv.
Mr. Shashwat Bajpai, Adv.

Mr. Tarun Gulati, Adv.
Mr. Manjul Bajpai, Adv.
Mr. Sparsh Bhargava, Adv.
Mr. Kishore Kunal, Adv.
Mr. Shashi Mathews, Adv.
Mr. Anupam Mishra, Adv.

TRAI

Mr. Mohit Paul, Adv.
Mr. Amit Bansal, Adv.

Mr. Masoom Ali Shaket, Adv.
Mr. Nitin Kala, Adv.
Mr. Pukhrambam Ramashikumar, Adv.
Ms. Vibha Dhawan, Adv.

Mr. L. Nageshwara Rao, Adv.
Mr. K.R. Sasiprabha, Adv.
Mr. Raghav Shankar, Adv.
Mr. Vishnu Sharma, Adv.

UPON hearing the counsel the Court made the following
O R D E R

Hearing resumed. Apart from arguing on merits, learned counsel for the parties have addressed their claim with regard to the notice inviting applications dated 09.01.2015. They have undertaken to file written notes and submissions by the next date. In course of hearing certain aspects have been highlighted which, we think, the competent authority of Union of India should put by way of an affidavit so that while deciding finally, this Court may take into consideration for issuing appropriate directions or molding the relief. The affidavit shall cover the following :

- (a) After completion of the present auction, what is the quantum of spectrum available with the Union of India?

- (b) What is the possibility of getting the non-vacating spectrum from the defence band and within what time?
- (c) Whether an auction can be held in respect of the available spectrum, regard being had to what has been stated in (a) and (b) above?
- (d) Whether in the auction that is going to be held, the concept of capping would still remain and, if so, what would its formula and how it would be interpreted and applied? While calculating the cap, if that exercise is undertaken, whether the commercially available spectrum should be included in the computation of such caps?
- (e) The successful bidders who have got less than five and in case they fail in the next auction, how they can deal with the spectrum? To elaborate, though they can surrender or trade any spectrum or share the same as per guidelines, do they have a choice to hold it or the Union of India would take steps in that regard as per law.

Needless to emphasise, it is open to the Union of India to consult the Telecom Regulatory Authority of India as regards this aspect.

The affidavit shall be filed in the first week of July 2015.

Let the matter be listed on 21.07.2015.

(Gulshan Kumar Arora)
Court Master

(H.S. Parasher)
Court Master

Detail Note on Spectrum Cap

TRAI in its recommendations on 'Auction of Spectrum' dated 23.04.2012 had recommended that the limit for acquisition of spectrum shall be 50% of the spectrum assigned in each band in the respective service area and 25% of the total spectrum assigned in all bands put together in each service area, which had been approved by the Government. The relevant clause no. 5.3 of NIA dated 9.1.2015 is as follows:

Clause 5.3 Spectrum Holding Capping Rule

For the purpose of this Auction the bidding by the bidders for each of the Service Areas in each of the bands will be restricted by a Cap which would depend on the Spectrum assigned in the respective band (2100 MHz/1800 MHz/ 900 MHz/800 MHz) and also on the Total Spectrum assigned in all the bands namely 800 MHz/ 900 MHz/ 1800 MHz/ 2.1 GHz/ 2.3 GHz/ 2.5 GHz along with respective paired frequencies.

5.3.1 Overall Cap

The Overall Cap for each of the Service Areas is calculated as 25% of the Total Spectrum Assigned for Telecom services in above mentioned frequency bands (including the Spectrum put for these auctions).

*** For the purpose of arriving at Overall Cap, the Total Spectrum Assigned in a Service Area is considered as the sum total of the current holdings of all the Telecom Service Providers across all bands in the respective Service Area PLUS the Spectrum put to auction in that particular Service Area.*

*** It may be noted that the Spectrum which is expiring in 2015-16 will not be considered in the Current Holdings. The same spectrum will only be considered as the Spectrum put to auction.*

5.3.2 Cap in 1800MHz band

The Spectrum Cap for each operator in each of the Service Areas in 1800 MHz band is calculated as 50% of the Total Spectrum Assigned, both uplink and downlink, for Telecom services in 1800 MHz band.

*** For the purpose of arriving at Spectrum Cap in 1800 MHz band, the Total Spectrum Assigned in a Service Area in 1800 MHz band is considered as the sum total of the current holdings of all the telecom operators in 1800 MHz band in the respective Service Area PLUS the Spectrum put to auction in 1800 MHz band in that particular Service Area.*

***It may be noted that the Spectrum which is expiring in 2015-16 will not be considered in the Current Holdings. The same spectrum will only be considered as the Spectrum put to auction.*

5.3.3 Cap in 900 MHz band

The Spectrum Cap for each operator in each of the Service Areas in 900 MHz band is calculated as 50% of the Total Spectrum assigned, both uplink and downlink, for Telecom services in 900 MHz band.

** For the purpose of arriving at Spectrum Cap in 900 MHz band, the Total Spectrum Assigned in a Service Area in 900 MHz band is considered as the sum total of the current holdings of all the telecom operators in 900 MHz band in the respective Service Area PLUS the Spectrum put to auction in 900 MHz band in that particular Service Area.

** It may be noted that the Spectrum which is expiring in 2015-16 will not be considered in the Current Holdings. The same spectrum will only be considered as the Spectrum put to auction.

5.3.4 Cap in 800 MHz band

The Spectrum Cap for each operator in each of the Service Areas in 800 MHz band is calculated as 50% of the Total Spectrum assigned, both uplink and downlink, for Telecom services in 800 MHz band.

** For the purpose of arriving at Spectrum Cap in 800 MHz band, the Total Spectrum Assigned in a Service Area in 800 MHz band is considered as the sum total of the current holdings of all the telecom operators in 800 MHz band in the respective Service Area PLUS the Spectrum put to auction in 800 MHz band in that particular Service Area.

5.3.5 Cap in 2100 MHz band

The Spectrum Cap for each operator in each of the Service Areas in 2100MHz band is calculated as 50% of the Total Spectrum assigned, both uplink and downlink, for Telecom services in 2100MHz band.

**For the purpose of arriving at Spectrum Cap in 2100 MHz band, the Total Spectrum Assigned in a Service Area in 2100MHz band is considered as the sum total of the current holdings of all the telecom operators in 2100MHz band in the respective Service Area PLUS the Spectrum put to auction in 2100MHz band in that particular Service Area.

2. Based on the above direction, the methodology for calculation of spectrum cap was implemented in the previous held spectrum auctions including recently concluded auction in March 2015.

3. While calculating spectrum cap for March 2015 auction, the following had been taken into accounts:

- Frequency bands 800 MHz (Frequency Division Duplex [FDD]), 900 MHz(FDD), 1800 MHz(FDD), 2100 MHz(FDD) and 2300/2500 MHz(Time

Division Duplex (TDD)) had been considered for calculation of overall spectrum cap.

- Spectrum allotted to existing operators (allotment) in the above mentioned bands and spectrum put for auction in 800 MHz, 900 MHz and 1800 MHz bands (availability).
- FDD spectrum taken as paired spectrum and TDD spectrum as unpaired

4. It is important to note that spectrum surrendered by the TSPs in some of the above mentioned bands, which was not put for auction, had not been taken into account for calculation of spectrum cap. Such spectrum blocks are available with the department and can be put for auction in future. Such non-inclusion of surrendered spectrum reduces the overall spectrum cap in a service area as compared to previous auctions.

Detail Note on
Provisions of NIA dated 9.1.2015 on quantum of spectrum to be bid by bidders

As per NIA dated 9.1.2015, the conditions for bidders to bid in 1800 MHz and 900 MHz bands were as follows:

1800 MHz band

- i. Block size shall be of 200 kHz (Paired) in 1800 MHz Band.
- ii. The existing licensees would be required to bid a minimum of 0.6 MHz spectrum (paired).
- iii. In the LSAs, where total of 5 MHz (paired) or more spectrum is not available or where 5MHz (paired) or more spectrum is available but contiguous chunk of 5 MHz (paired) is not available in 1800 MHz band, the new entrants as well those licensees whose licenses are expiring in 2015-16 would be required to bid for a minimum of 0.6 MHz (paired).
- iv. In those LSAs where at least one chunk of contiguous 5 MHz (paired) is available in the 1800 MHz band:
 - (a) The new entrants would be required to bid for a minimum of 5 MHz (paired).
 - (b) Those licensees whose licenses are expiring in 2015-16 and do not hold any Spectrum in 1800 MHz band won through Auctions in November 2012 and February 2014 would be required to bid for a minimum of 5 MHz.
 - (c) Those licensees whose licenses are expiring in 2015-16 and hold Spectrum in 1800 MHz band won through Auctions in November 2012 and February 2014 would be required to bid for a minimum of 0.6 MHz (paired).

900 MHz band:

- i. Block size shall be of 200 kHz (Paired) in 900 MHz Band.
- ii. New entrant / licensees whose licenses are expiring in 2015-16/ Existing licensees whose licenses are not expiring in 2015-16 & holding spectrum only in 1800 MHz band would bid for a minimum of 5 MHz (paired) of spectrum in the 900 MHz band, except in West Bengal service area.

iii. In the West Bengal service area new entrant / licensees whose licenses are expiring in 2015-16/ Existing licensees whose licenses are not expiring in 2015- 16 & holding spectrum only in 1800 MHz band would bid for a minimum of 4.4 MHz (paired) , which is the amount of spectrum available in this service area in the 900 MHz band.

iv. The existing licensees whose licenses are not expiring in 2015-16 and holding spectrum in 900 MHz band in a service area may be allowed to bid for a minimum of 0.6 MHz (paired).

2. As per the conditions laid down for the spectrum auction held in March 2015, existing TSPs could bid for less than 5 MHz spectrum with a minimum of 0.6 MHz. It is possible that the successful bidders who have got less than five and in case they fail to acquire spectrum in the next auction, the bidders would have spectrum less than 5 MHz and upto 0.6 MHz. Practically, it is not possible to provide any kind of economic viable services with a such quantity of spectrum (i.e. less than 5 MHz).