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Letter Ref No: RP/FY 15-16/040/033
Dated: 15th June 2015

To,
Joint Advisor (NSL – II),
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan, Jawahar Lal Nehru Marg,
Old Minto Road, New Delhi – 110002.

Subject : In Re: 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.

Reference: TRAI letter no. 103-5/2015-NSL-II dated 4th June 2015.

Dear Sir

This bears reference to the above referred letter from TRAI dated 4th June 2015 wherein the comments of Telecom Service Providers have been sought on the issues related to Spectrum Cap and minimum spectrum as a follow up of Supreme Court interim order dated 14th May 2015.

Our views and suggestions in the matter are enclosed as Annexure to the letter for your kind consideration.

Yours sincerely

For Bharti Airtel Limited

A handwritten signature in black ink, appearing to read 'Ravi P. Gandhi', written over a horizontal line.

Ravi P. Gandhi
Chief Regulatory Officer (Policy)

Enclosed: As mentioned above.

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?**

Bharti Airtel's Response:

- (i) In our view, the holding of spectrum should not be subject to a cap. Post the judgment passed by the Hon'ble Supreme Court in 2012, the Government has adopted the policy of allocating all access spectrum via auctions and allowing the operators to bid for the spectrum available at prices determined basis the bidding. The 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. Further, the impending spectrum sharing and trading guidelines will also play a key role in ensuring that spectrum is not hoarded or improperly utilized by operators.

We therefore believe that in the current scenario spectrum caps are not required and the Government should do away with their imposition. Countries like US and UK have also done away with the spectrum caps, which has allowed market forces to determine and limit the spectrum that an operator buys.

- (ii) In relation to the specific question of whether or not commercially available spectrum, which is available with the department and not put to auction should be included in the computation of caps, we have the following submissions:

- **Spectrum Caps should remain constant and only increase with time:**

Based upon the availability of spectrum and prevailing spectrum caps, operators procure spectrum and commit huge investments towards the deployment of networks, which are then used for the provision of the service to subscribers and to ensure quality of service. Therefore, certainty in the government policies is a critical pre-requisite and its absence may well manifest as degradation of the quality of service offered to subscribers. Any reduction in spectrum caps will also:

- Force operators to reduce their spectrum holdings and impact the investment made in network deployment.
- Impact their long-term plan by reducing their ability to procure additional spectrum in subsequent auctions.
- Result in deterioration of the quality of the services being provided to the subscribers.

It is therefore imperative that **spectrum caps either remain constant or be revised upwards with availability of additional spectrum irrespective of whether or not the same is being put to auction immediately or in the future.**

- **While determining the spectrum caps, the following spectrum needs to be included:**

(a) Spectrum surrendered by an operator:

Any reduction in spectrum caps due to surrender of spectrum by an operator and consequent decision of DoT not to include it in the next/upcoming auction, results in a situation wherein an existing operator gets impacted and penalized due to the acts or unilateral decision(s) of another operator who has not successfully utilized a scarce resource such as spectrum. Surrender of spectrum by an operator should not result in reduction of caps as the same has been used commercially previously and is available with the department for commercial use and therefore should be included in the auction. Further, the reduction in caps due to surrender by one or more operator(s) acts as a penalty on the operator who continues to provide services and is prohibited from bidding due to no act or omission on his part, examples of which are detailed in Annexure – II.

It is therefore imperative and within the realms of being just, that the **spectrum surrendered by operators should be included for the calculation to determine the Spectrum Caps.**

(b) All spectrum available with the Department for commercial use:

As long as there is spectrum available with the DoT for commercial use, the same should be included in the calculation for determining the spectrum caps. It is submitted that significant quantum of spectrum for commercial use in different bands is available with the DoT consequent to vacation by Defence/ Government agencies. For instance, DoT has a significant amount of vacant spectrum available in the 2300 MHz and 2500 MHz bands.

Further, as per the long term strategy, operators tend to choose the specific technologies that they intend to deploy presently and in the future. The same requires the operators to procure/ buy spectrum in specific bands. For example, an operator wishing to deploy 3G centric network may like to opt for spectrum in 900 MHz/ 2100 MHz band that has a developed 3G ecosystem as compared to other bands. Similarly, an operator looking to deploy an LTE network would prefer to hold spectrum in 2300 MHz/ 2500 MHz/ 1800 MHz/ 800 MHz bands. Non-inclusion of all commercially available spectrum (available with the department and not put to auction)

limits the ability of heterogeneous operators to buy spectrum in appropriate bands.

It is therefore recommended that vacant spectrum available with the Department, which can be included in auction immediately or in the future, should be used to calculate the caps to ensure that the operators can bid for and acquire the spectrum for provision of the services.

We therefore submit that **all spectrum available with DoT for commercial use should be included while determining the spectrum caps**, even if it is not being put to sale in any upcoming auction.

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 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.**

Bharti Airtel's Response:

In this regard, we would like to refer to the recent response of the Authority to the reference received from DoT on Recommendations on Spectrum Sharing & Spectrum Trading. The TRAI recommended the following:

Spectrum Sharing:

"Both the licensees are required to fulfill specified roll-out obligations and prescribed QoS norms. Moreover, subsequent to sharing the licensees can offer only those services which they can offer through their own spectrum holding. To fulfill all these required obligations, the licensee itself can determine the minimum spectrum holding that it is required to hold."

Spectrum Trading:

In case a TSP (seller) wishes to sell only a part of its spectrum holding in a particular band then the seller shall not only remain responsible for the roll-out obligations linked with that spectrum band but it also has to ensure that it continues to meet the roll-out obligations and Quality of Service (QoS) norms as prescribed by the TRAI/Licensor from time to time after the sale of spectrum. Seller may decide itself how much spectrum is required to fulfill these obligations.

In the case of both spectrum trading and spectrum sharing, the Authority has left the minimum quantum of spectrum that an operator is required to hold at its discretion subject to fulfillment of rollout obligations and quality of service norms.

The case of an operator left with less than 5 MHz post expiry of licenses and unable to buy spectrum in the subsequent auction is similar to the above. It is thereby recommended that

the minimum quantum of spectrum that an operator is required to hold in such a scenario be left to its discretion subject to fulfillment of rollout obligations and quality of service norms.

Other issues for consideration in respect of Spectrum Caps:

The following issues in respect of Spectrum Caps shall also be considered:

- **Spectrum Caps be defined at the starting of the year for the upcoming year:**

It is recommended that the spectrum caps be defined at the start of the year for the upcoming year, say in the first week of Jan. The said spectrum caps would then become the guiding caps in case of any events / transactions such as spectrum trading, spectrum sharing and M&A activities. This will eliminate any ambiguity, which may arise due to asymmetrical information. The said spectrum caps may be revised upward in case of availability of additional spectrum, which may become available for commercial communication from defence/ government agencies or if any operator surrenders the same, during the course of the year.

- **Overall Spectrum Caps be increased:**

To promote consolidation in the telecom sector, the Government released the merger & acquisition guidelines under which mergers are allowed till the market share (subscriber and revenue) of merged entity is up to 50%. Currently, operators cannot hold more than 50% spectrum in a particular band and more than 25% of the total spectrum holdings in all bands together.

The objective of placing this restriction is to ensure that a minimum of four mobile operators continue to operate in the cellular market. Since, it is highly unlikely and impractical to assume that all operators would maintain the same market share, the government relaxed market share limits for mergers and acquisitions by increasing the limit from 35% to 50%.

Large operators require enormous amount of spectrum to meet national objectives like broadband highways and the digital India campaign, principally when data consumes more spectrum than voice. Anticipated spectrum requirements are several times larger than the total amount of spectrum currently allocated to commercial mobile communications.

We therefore request that spectrum caps as currently defined, be reconsidered and 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.**

During the Mar, 2015 auction the Spectrum Caps for many service areas were lower than that mandated during the Feb, 2014 auctions. A comparison of the overall spectrum cap defined in the Mar, 2015 NIA with respect to the overall caps defined in Dec, 2013 NIA is highlighted in the table below.

Service Area	Overall Cap (MHz) as per Dec, 2013 NIA	Overall Cap (MHz) as per Jan, 2015 NIA	Diff Overall Cap Jan,15 NIA V/s Dec, 13 NIA
Kolkata	66.38	63.88	-2.50
Karnataka	67.88	65.40	-2.48
Tamil Nadu	72.58	70.70	-1.88
Delhi	63.60	61.73	-1.87
Maharashtra	63.83	62.20	-1.63
Gujarat	63.65	63.10	-0.55
West Bengal	61.43	61.15	-0.28
Andhra Pradesh	67.50	67.40	-0.10
Bihar	62.98	62.98	-
Mumbai	67.93	67.93	-
Kerala	68.93	69.90	0.97
Punjab	65.75	67.00	1.25
Himachal Pradesh	62.08	63.95	1.87
Rajasthan	64.48	66.98	2.50
Uttar Pradesh (West)	61.13	64.25	3.12
Orissa	64.93	68.68	3.75
Jammu & Kashmir	49.65	54.03	4.38
Madhya Pradesh	65.15	69.88	4.73
Uttar Pradesh (East)	62.03	67.30	5.27
Haryana	62.23	67.85	5.62
Assam	54.08	62.20	8.12
North East	59.35	67.48	8.13

- It is evident from the above that the Overall Caps for 8 LSAs were lower than the overall caps defined in the NIA for spectrum auction during Dec, 2013 even though the methodology and the formula for the calculation of the caps did not undergo any change. On the contrary, spectrum caps should have been higher considering the fact that an **additional 207.5 MHz (103.75+103.75) spectrum in 800 MHz band across 20 LSAs and 170 MHz (85+85) spectrum in 2100 MHz band across 17 LSAs** was being put to auction.
- On subsequent analysis of the data published by DoT, it was made apparent that the caps had been lowered due to non-consideration of spectrum surrendered by some of the operators while determining the Spectrum Cap, as indicated below:

- 160 MHz of BWA spectrum (2300 MHz band) was surrendered by BSNL and MTNL in 8 service areas;
 - 30 MHz (15+15) spectrum in 2100 MHz band with STEL in three service areas namely HP, Orissa and Bihar was considered surrendered/ not assigned;
 - 40 MHz (20+20) spectrum in 800 MHz band was surrendered across 15 service areas by M/s Tata.
- This reduction in spectrum caps impacted Bharti Airtel in three service areas namely, Karnataka, Delhi and Mumbai:
 - **Karnataka:** In Karnataka, the overall spectrum caps were reduced from 67.88 MHz to 65.40 MHz, despite the additional 2.5 MHz (1.25+1.25) in 800 MHz band and 10 MHz (5+5) of spectrum in 2100 MHz band put to auction. Consequently, Airtel could only procure 17.6 MHz (8.8+8.8) spectrum despite returning 20 MHz (10+10) spectrum post expiry of licenses. Therefore we will not be able to continue with the spectrum already held by us.
 - **Delhi:** In Delhi, the spectrum Caps were lowered despite an additional 10 MHz (5+5) of spectrum in 2100 MHz band and 5 MHz (2.5+2.5) in 800 MHz band put to auction. Airtel, therefore, was not able to bid for 10 MHz (5+5) spectrum in 2100 MHz band despite its requirement and willingness. It is also worth mentioning that 10 MHz (5+5) spectrum in 2100 MHz band remained unsold post the auction leading to loss to the exchequer as well.
 - **Mumbai:** In Mumbai, despite the additional 10 MHz (5+5) spectrum in 800 MHz band and 10 MHz (5+5) in 2100 MHz band being put to auction, the spectrum cap was retained at 67.93 MHz. During the same period, the merger of Airtel & ABSPL was approved by DoT and Airtel was asked to surrender 2.47 MHz (1.235+1.235) of spectrum which would not have been required had the spectrum caps being raised considering the additional spectrum put to auction.

The above examples show how lowering of spectrum caps can result in a situation where an existing operator gets impacted due to a unilateral decision by another operator to surrender spectrum and/or a decision of DoT not to auction unsold spectrum in a band, thereby creating uncertainty.



June 15, 2015

Mr. Jaipal Singh Tomar
Joint Advisor (NSL-II)
Telecom Regulatory Authority of India
Government of India
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg,
(Old Minto Road),
New Delhi – 110 002

Dear Sir,

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.

This is in reference to your letter Ref. No. F.No.103-5/2015-NSL-II dated June 4, 2015 on the captioned subject, our views and suggestions are as under on the Point No. 2 (a) and 2 (b) as referred in your said letter:

2(a) (i) *Whether the capping should still remain and if so, what should its formula and how it should be interpreted and applied?*

TTL Response:

- The overall cap for each service area is calculated as 25% of the total spectrum assigned in 800/900/1800/2.1GHz/2.3GHz/2.5GHz. TRAI had earlier arrived at this cap after analyzing the growth in mobile and data services and also use spectrum efficiently.
- The spectrum cap for each operator in a particular band is calculated as 50% of the total spectrum assigned in that band. This is to prevent hoarding of spectrum by single operator and promote spectrum efficiency.
- The existing spectrum caps i.e., ceiling of 25% of the 'total spectrum assigned' in all bands put together and 50% within a given band in each service area should continue.

2(a) (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?*

TTL Response:

- The caps should be always linked to spectrum being put to commercial use & not what's commercially available with the DoT. By inclusion of the available spectrum into the spectrum cap calculation will permit some operators to hoard spectrum more than the requisite quantum and therefore should be discouraged. Further, this would create unnecessary complication in terms of the percentage holding post the auction as the actual holding scenario would undergo a change with regard to individual operator.

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- 2(b) (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?*
- 2(b) (ii) *Whether do they have a choice to hold tit or the department would take steps to take back such spectrum considering that no economical viable service can be provided with the spectrum holding less than 5 MHz? If so, TRAI may suggest the terms and conditions for taking back such spectrum?*

TTL Response:

- In case any operator manages to get less than 5 MHz spectrum in an auction, there is no need for the government to take back the spectrum as several other methodologies are/will be available such as spectrum trading/sharing to make right use of the spectrum. Further, an operator can offer services even with less than 5 MHz spectrum and still meet QoS guidelines. It should be left to operator to take commercially viable decision on such matters. However, the operator should have an option of returning the spectrum to government at the last determined market prices. It should be left to the discretion of the operator to decide whether to offer services using methodologies like spectrum trading / sharing or whether to return the spectrum to government at last determined market prices.

Please do contact the undersigned for any further clarification.

Thanking you,

Yours Faithfully,
For Tata Teleservices Limited

Bhaskar Chandran
President – Legal, Regulatory & Company Secretary

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To,
Joint Advisor (NSL-II)
Telecom Regulatory Authority of India,
Mahanagar Door Sanchar Bhawan,
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11387
23/6/15

No. Regln/1-4/2014/ 1276

Dated: 22-06-2015

{Kind attention: Sri. Jaipal Singh Tomar}

Sir,

Sub:- Issue relating to Spectrum Cap and minimum spectrum holding by Telecom
Service Providers (TSPs) as follow up of SC interim order dated 14-05-2015

Kindly refer to TRAI letter No.103-5/2015-NSL-II dated 04-06-2015 on the subject mentioned above. In this context, it is submitted that BSNL was assigned spectrum through administrative licensing by WPC, DOT. BSNL has never participated in any auction of GSM spectrum for getting the spectrum. Further comments on point (d) & (e) are as follows.

Related to Point (d).

There should be capping of spectrum for each of the service area to avoid highly asymmetric distributions of spectrum among operators. The existing capping policy of spectrum appears to be logical and reasonable to enable effective competition for the TSPs and to avoid monopoly of any of the TSPs by holding excess spectrum.

Related to Point (e).

In this regard it is submitted that as the spectrum is a national resource, hence it is in purview of GOI to make policy decision on the same and being a public operator, BSNL abides by that.

This is for kind information and necessary action please.

Yours Sincerely

22/6/15

Raghuvir Singh
AGM (Regln-II)



RSM/COAI/2015/111

June 15, 2015

Shri Sanjeev Banzal,
Advisor (NSL)
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan,
(Next to Zakir Hussain College)
Jawaharlal Nehru Marg (Old Minto Road)
New Delhi

Subject: COAI Response to TRAI on Spectrum Caps

Dear Sir,

Please find below our response to the TRAI queries:

TRAI Query

a)

- (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?

COAI Response

1. Spectrum Caps should only increase with time. Once an absolute spectrum cap in terms of quantum of spectrum has been declared by DoT, it should not be lowered in any scenario whatsoever. .
2. While determining the spectrum caps, the following spectrum needs to be included:
 - a. All spectrum assigned for access services
 - b. All spectrum available with the Government for commercial use for access services being put to auction.
 - c. Spectrum surrendered by an operator, which was earlier included to determine the spectrum cap.
3. It is to be noted that shared spectrum should not to be included for determining cap, as such inclusion would defeat the basic purpose of spectrum sharing.



4. To maintain clarity, the Government should define spectrum caps at the starting of the year/ beginning of financial year for the upcoming year and may be revised upward in case of availability of any additional spectrum being put to auction. The said spectrum caps would then become the guiding caps in case of any events / transactions such as spectrum trading, spectrum sharing and M&A activities in that particular year. This will eliminate any ambiguity, which may arise due to asymmetrical information.

TRAI Query

b)

- (i) The successful bidders who have got less than 5 MHz and in case they fail in the next auction, how can they 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 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.

COAI Response

1. It is not completely correct to state that no economically viable service can be offered with less than 5 MHz of spectrum as in the past many services were started with less than 5 MHz of spectrum.
2. Also, the same problem was faced by many of the extension licensees in the recent auction who had to participate in the auction to re-acquire spectrum and maintain business continuity.
3. However, for most efficient utilization of spectrum towards maximum benefit of economy and subscribers, spectrum sharing and trading policies should be notified at earliest. This would take care of any such scenario in future.

Regards,

Rajan S. Mathews
Director General

CC :  Shri Jaipal Singh Tomar, Jt. Advisor (NSL), TRAI

Annexure A

Our responses to the TRAI queries are as follows:

a) Related to Point No. (d)

- (i) Whether the capping should 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?**

Idea Cellular Submission:

- At the outset, we would like to submit that there needs to be a consistency and predictability on the issue of computation of spectrum caps. In the last Auction held in March 2015 there was a lot of ambiguity on the issue as it was not clear as to how spectrum caps had been changed since the earlier auction.
- Further, any reduction in earlier notified spectrum cap is unfair and hence in no case, in future, should the spectrum Caps be lower than the ones prescribed in a prior auction. We recommend that the following two principles be adhered to at all times to ensure fairness and equity -
 - a. 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.
 - b. Spectrum once acquired by a licensee any time through a valid process at the time of acquisition should always remain valid irrespective of any subsequent developments.
- We further feel that the Spectrum Caps should be fixed on the basis of the spectrum available with DoT for allocation, including the spectrum surrendered by any operator and available with WPC for commercial use, as well as unsold spectrum of an earlier auction. In that context, we would like to submit that the WPC has published the quantum of spectrum held by various licensees in different bands as on 31 Jan 2015. While the spot frequencies from Year 2010, Year 2012, Year 2013, Year 2014 and the Year 2015 auctions are available in Public domain, there has been mutual exchange of frequencies. The information on administrative allocations prior to Year 2010 as well as the guard band and vacant spectrum is not available in public domain. This is valuable information for spectrum evaluation. It is critical that the Spectrum Caps calculation

includes the entire spectrum withheld by WPC and available for commercial use, but excludes what is not put up for auction.

- Idea Cellular believes that currently the Indian market suffers from hyper-competition and on a prospective basis for healthy competition to flourish, a minimum number of 4 private players with 5 MHz contiguous spectrum in a LSA would be required in every spectrum band. In that context, the existing prescribed spectrum Cap (25/50 rule) determined on the basis of the Spectrum assigned in the respective band and also on the Total Spectrum assigned in all the bands appears reasonable and should continue. Further, for determination of successful bidders in the auction, the first priority should be given to the TSP that does not already hold a block of 5 MHz contiguous spectrum in that band, and only after allocation is made to each such bidder who is bidding for its first contiguous block (first carrier) of 5 MHz in that specific band, the balance spectrum in that band should be made available for allocation to other bidders who already have a holding of 5 MHz contiguous block in that particular band.
- As also submitted in the past by Idea Cellular, spectrum caps should not be made applicable for purposes of "Spectrum Sharing" as that is likely to disincentivize sharing. However, if the Licensor still wishes to include a part of the shared spectrum for calculation of the prescribed market caps of any licensee post-sharing then as recommended by TRAI only 50% of the spectrum held by the other licensee in the band being shared should be counted as the additional spectrum being held by the licensee.
- Idea Cellular wishes to add here that transparency being one of the critical elements of any regulatory process / policy , it is important that the DoT transparently publish the basis on which spectrum caps get derived for each of the participating operators in any Auction. The DoT would recall that details of the methodology used for such computation were not made available during the last auction. It is therefore submitted that such details of Band wise, operator wise allocation, Guard band and unallocated spectrum be made available in the auction NIA document without the need for any specific operator requests.
- Further, since the whole purpose of spectrum caps is to promote optimum use of spectrum, there is also a need to recognize the importance of harmonization of spectrum and follow a proper auction design. Towards that end, we recommend the following –
 - a. All efforts should be made to harmonise spectrum and to provide 5 MHz contiguous spectrum blocks in each frequency band to operators who already hold 5 MHz or more of spectrum in each LSA. This is relevant for 800 MHz, 900 MHz and 1800 MHz spectrum bands. In case of 2100 MHz and 2300 MHz there is no fragmentation.

Further, if in the process of harmonization with Defence, additional spectrum becomes available in any service area due to prioritization of the harmonization process, the auction of that spectrum should be done only once the harmonization activity for all LSAs has been completed.. In cases where operators have 10 MHz spectrum in a particular band, best efforts should be made to provide 10 MHz contiguous blocks.

- b. In the previous auctions, we have had major problems, as products with different values have been auctioned together. As a result a bidder who was interested in only 5 MHz contiguous spectrum was forced to take either lesser quantity of spectrum or non-contiguous spectrum which it was not interested in. For example if an existing operator who is using 1800 MHz for GSM wishes to acquire a 5 MHz contiguous block for deploying LTE, then that operator will have zero value for spectrum allocation of anything less than 5 MHz contiguous spectrum. Such an operator cannot use the spectrum for GSM as it already has what it needs for GSM and it cannot use it for LTE as a 5 MHz contiguous spectrum is not allocated. Hence, the following spectrum blocks should be auctioned as separate products in the same auction, with separate bids placed for each of the following categories in a specific band –

- (i) Contiguous blocks of 5 MHz available across the entire geography of LSA
- (ii) Contiguous blocks of 5 Mhz available in part of the LSA
- (iii) Non-contiguous blocks of < 5 MHz available across the entire geography of LSA
- (iv) Non-contiguous blocks of < 5 MHz available in part of the LSA

This would prevent unwanted fragmentation of spectrum and would enable bidders to bid for what they actually need.

We further propose that the options for Spectrum Trading or Sharing should also be made available to the operator for situations where as a successful bidder it has won less than 5 MHz of spectrum. It is critical therefore that the policies on Spectrum Sharing and Trading be notified by the Licensor at the earliest.

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 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.

Idea Cellular Submission:

We submit that any spectrum which has been won by an operator (even if less than 5 MHz) in an auction should remain with them and the same should not be taken back. While it is not possible to provide meaningful services in new technologies (3G and 4G) with less than 5MHz contiguous spectrum, GSM services are still being provided by operators with less than 5 MHz contiguous spectrum. Hence, spectrum cannot be taken back as it will result in disruption of GSM services. However, if a TSP has won less than 5 MHz spectrum in an auction, they may be given the option to return the said spectrum with refund of the price paid, because in many cases operators were only interested in contiguous spectrum blocks of 5MHz, but were unnecessarily saddled with allocation of non-contiguous blocks of lesser quantity because of the faulty auction design.

Further, if the said spectrum needs to be swapped for the purpose of harmonization and that can be done without any additional cost implication for the TSP, then they should be asked to swap (not return) their spectrum in the same band to facilitate harmonization.

The only exception to this general rule can come in case of Bihar, where the issue that was raised in petitions filed before the auction, but could not be addressed before the auction. This is as under –

- a. Before the auction petitions were filed that all operators bidding for 900 MHz could bid for a minimum of 5 MHz spectrum. An exception was made as under in Clause 2.1 (b) (iv) and Clause 5.2 (ii)(c) of the NIA dated January 9, 2015 and it stated that " *The existing licensees whose licenses are not expiring in 2015-16 and holding spectrum in 900 MHz band may be allowed to bid for a minimum of 0.6 MHz (paired).*"
- b. This exception was challenged in the Honourable High Court at Allahabad vide Writ Petition C No.8315 of 2015 but the matter remained undecided as the case was transferred to the Honorable Supreme Court.
- c. This resulted in a situation in Bihar where the winner for 900 MHz won 1.6 MHz leaving 4.6 MHz spectrum unsold (*6.2 MHz available less 1.6 MHz sold in auction*). This has resulted in wastage of very valuable 900 MHz spectrum which would not be useful to a new player unless the full quantity of 5 MHz contiguous spectrum was made available.

- d. In light of this situation, which was raised before the auction, our suggestion is as under –
- (i) Either complete the contiguous block of 5 MHz by taking 0.4 MHz back from the winner in the Mar'15 auction with refund of the price paid for that quantity; OR
 - (ii) Complete the contiguous block of 5 MHz by taking 0.4 MHz from BSNL (*this may also require some swap for harmonization*) as earlier recommended by TRAI.

.....X.....

RCOM response to TRAI's letter to TSP's in regards issues relating to Spectrum Cap and Minimum Spectrum holding by TSPs as follow up of SC interim order dated 14.5.2015

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 the such caps?

RCOM's comments on point 'd':

1. DoT to ensure that the original philosophy of ensuring adequate competition in each LSA is maintained and sufficient headroom is available for each operator to acquire additional spectrum. The capping should still remain and the formula for calculating the capping should be based on the same. Accordingly, we propose the following:
 - (i) The spectrum capping rules i.e. 50% of earmarked spectrum for commercial use in a LSA within a band and 25% of the overall earmarked spectrum for commercial use in a LSA in the 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands, should be applicable.
 - (ii) Capping of 50% within a band in a LSA must allow a TSP to hold 2X10 MHz in 800 MHz band. For 800 MHz band, DoT in its M& A guidelines of Feb'14 has specified 2X10 MHz as band cap. **Thus, to maintain consistency, 2X10 MHz should be the band cap for 800 MHz in all LSAs.**
 - (iii) Here "earmarked spectrum" for commercial use would mean the sum of,
 - Current holdings of all the TSPs across all bands in the respective LSA.
 - Spectrum unallocated in that particular LSA.
 - Any spectrum which is surrendered by a TSP even if it is not put to auction by DoT will be counted as unallocated spectrum.
 - Any additional spectrum that is made available in the above mentioned bands as well as any new spectrum band like 700 MHz.
2. The available spectrum in each LSA in 2100 MHz is 2 x 25 MHz, the existing cap of 50% within a band in a LSA for 2100 MHz band works out - 2x12.5 MHz, 3 additional slots of 2x5 MHz each in this band are being made available in each LSA for commercial use as a result the Cap should be 2 x 20 MHz.

3. In 1800 MHz spectrum band, the quantum within the band cap of 50% will enhance to **2x27.5 MHz**, as the harmonization with Defence is **in progress** for the entire 2x55 MHz spectrum for commercial use in each LSA. The DoT expects to complete this exercise by July'2015.

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 economical viable services can be provided with a spectrum holding less than 5 MHz? If so, TRAI may suggest the terms and conditions for taking back such spectrum.

RCOM's comments on point 'e':

As per TRAI's own recommendations, the current technologies enable provisioning of economical viable services with less than 2x5 MHz of spectrum. Therefore the successful bidders who holds less than 2x5 MHz in a LSA and are unable to acquire additional spectrum in subsequent auctions should be allowed to explore other opportunities to enhance their holdings to spectrum levels that permit provisioning of economical viable services.

1. TRAI in its recommendations on "Valuation and Reserve Price of spectrum" dated 15th Oct 2014 had stated that minimum spectrum required to run GSM (2G) services is 2x2.4 MHz. However the administrative allocation of start-up spectrum in GSM (1800 MHz) to run 2G service is 4.4 MHz.
2. Similarly the administrative allocation of startup Spectrum in case of CDMA(800 MHz) was 2x2.5 MHz which is considered as the minimum requirement for provisioning CDMA (800 MHz) based services.
3. For TSPs running LTE, a TSP requires 2x3 MHz to run narrow band LTE and 2x5 MHz or multiple of 5 MHz for running broad band LTE.
4. For the stated instance where the successful bidders who have got less than 2x5 MHz and in case they fail to acquire additional spectrum in the next auction will have the option of adding spectrum through the trading and sharing route to ensure continuance of their services. Hence, with the new policy of Spectrum sharing and trading expected to be released by DoT in July'15, there is no requirement for an operator to hold minimum 2x5 MHz in a LSA.

5. Therefore in **our view** there should be no action on any TSPs holding Spectrum less than 2x5 MHz for providing 2G services, more over the roll out obligation, meeting QoS standard is responsibility of TSP.
6. It is also suggested that 2x2.4 MHz should be the minimum quantum to be bid for GSM services 900/1800 MHz) in an auction for a “New entrant”.

Table -1

Annexure -1

BAND CAP (In MHz)												Over All Band CAP			
#	Category	Circle	Code	900 MHz	1800 MHz		800 MHz	2100 MHz		2300 MHz			New Over all Cap	Old Over all Cap	Difference (In MHz)
					Existing	New		Existing	New	Existing	New				
1	Metro	Delhi	DL	11.1	20.0	27.5	8.125	12.5	20.0	20	30		40.9	30.9	10.0
2	Metro	Mumbai	MU	11.1	26.2	27.5	8.125	12.5	20.0	20	30		40.9	34.0	6.9
3	Metro	Kolkata	KO	10.1	24.4	27.5	6.875	12.5	20.0	20	30		39.7	31.9	7.8
4	A	Andhra Pradesh	AP	10.1	27.3	27.5	7.5	12.5	20.0	20	30		40.1	33.7	6.3
5	A	Gujarat	GJ	10.1	23.0	27.5	7.5	12.5	20.0	20	30		40.1	31.6	8.5
6	A	Karnataka	KN	10.1	25.3	27.5	7.5	12.5	20.0	20	30		40.1	32.7	7.3
7	A	Maharashtra	MH	10.1	22.7	27.5	6.875	12.5	20.0	20	30		39.7	31.1	8.6
8	A	Tamil Nadu	TN	10.1	30.6	30.6	7.50	12.5	20.0	20	30		41.6	35.4	6.3
9	B	Haryana	HR	9.3	23.6	27.5	7.50	12.5	20.0	30	30		39.7	33.9	5.7
10	B	Kerala	KL	9.3	26.2	27.5	6.88	12.5	20.0	30	30		39.3	35.0	4.4
11	B	Madhya Pradesh	MP	9.3	25.0	27.5	8.125	12.5	20.0	30	30		40.0	34.9	5.0
12	B	Punjab	PJ	10.9	21.7	27.5	6.875	12.5	20.0	30	30		40.1	33.5	6.6
13	B	Rajasthan	RJ	9.3	23.3	27.5	6.88	12.5	20.0	30	30		39.3	33.5	5.8
14	B	Uttar Pradesh (East)	UE	9.3	23.6	27.5	6.875	12.5	20.0	30	30		39.3	33.7	5.7
15	B	Uttar Pradesh (West)	UW	9.3	20.0	27.5	7.5	12.5	20.0	30	30		39.7	32.1	7.5
16	B	West Bengal	WB	9.7	17.1	27.5	6.875	12.5	20.0	30	30		39.5	30.6	9.0
17	C	Assam	AS	9.3	17.3	27.5	8.125	12.5	20.0	30	30		40.0	31.1	8.9
18	C	Bihar	BH	9.3	21.2	27.5	7.5	10.0	20.0	30	30		39.7	31.5	8.2
19	C	Himachal Pradesh	HP	9.3	21.5	27.5	8.125	10.0	20.0	30	30		40.0	32.0	8.0
20	C	Jammu & Kashmir	JK	9.3	10.4	27.5	6.875	12.5	20.0	30	30		39.3	27.0	12.3
21	C	North East	NE	9.7	22.2	27.5	8.125	12.5	20.0	30	30		40.2	33.7	6.4
22	C	Odisha	OR	9.3	26.3	27.5	8.125	10.0	20.0	30	30		40.0	34.3	5.6
												878.9	718.0	161.0	



Reliance Jio

Infocomm Limited

RJIL/TRAI/2015-16/143

15th June 2015

To,
Secretary,
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg
Old Minto Road
New Delhi-100002

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.

Dear Sir,

This is in reference to the TRAI letter F.No.103-5/2015-NSL-II dated 4th June 2015 on the captioned subject, wherein TRAI has sought the TSPs views on the limited issues of spectrum cap, its applicability, calculations etc. and the proposed actions in case the spectrum holding fall below a threshold point.

Reliance Jio Infocomm Limited (RJIL) is a firm believer in the sanctity of the auction of spectrum and transparent and predictable regulatory regime. It is also submitted that in the era of auctioned spectrum, spectrum utilization should be driven by commercial principles and the Government should only monitor to prevent any distortions rather than actively prescribing conditions for spectrum utilization by TSPs. Our issue wise responses are as below:

a) Related to Point No.(d)

- (i) Whether the capping should still remain and, if so, what should be its formula and how should it 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?

RJIL Response:

- (i) Spectrum caps are introduced in a mobile market to primarily achieve the objectives of ensuring healthy competition in the market and preventing predatory behaviour by an operator. Given these objectives, the spectrum capping policy has been



successful in India, with sufficient competition in the market and no operator or group of operators being able to monopolize the market. The spectrum caps, therefore, should continue.

Current spectrum auction regime and technological advancements both ensure that any spectrum band can be used for any technology. Also, since all the spectrum allocation is through auction, the auction prices reflect the technical efficiency of the spectrum in a particular band, thus making the economic case agnostic to the spectrum band. Hence, just 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. Hence we propose the band-wise cap should be done away with and only the overall spectrum cap should be considered.

(ii) While calculating and applying the spectrum caps, the following points should be considered in our opinion:

1. Spectrum cap should only be applied on the TSP at the time of acquisition / award of spectrum (through auction or otherwise). The acquired spectrum should not, at a subsequent stage, be liable to be surrendered, in any eventuality of downward revision in the applicable Caps. This should be done in order to protect sanctity of the auction process whereby spectrum was awarded to operator for given period of time. It would also protect operator from any force majeure event like surrender by other operator, etc.
2. As submitted above, there is no justification for continuation of band-wise cap and only the overall spectrum cap should be considered. Accordingly the spectrum capping formula should be as per following:

25% of the total available spectrum in all the access spectrum bands in the service area

Wherein the total available spectrum in the service area should include the following:

- Spectrum currently assigned to TSPs
- Spectrum currently with the Government and put to auction
- Spectrum vacated or surrendered by TSPs (commercially available spectrum) in a band but currently not put for auction, since it forms part of overall spectrum which shall be put for use

Note: Any double count should be avoided so that the same frequencies are not considered as part of two of the above categories at any point of time.



b) Related to Point No. (e)

- (i) The successful bidders who have got less than 5 MHz 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 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.

RJIL Response:

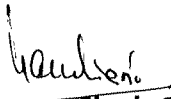
- (i) We believe that any operator who is unable to retain total of 5 MHz spectrum has the following choices:
 - a. Continue to deploy present technology with a smaller carrier size in case the technology permits to do so;
 - b. If not, shift to another technology which enables use of the spectrum;
 - c. Explore sharing of spectrum with other operators, subject to the Government's policy on spectrum sharing;
 - d. Explore other routes to monetize investment in the spectrum, if not usable, such as spectrum trading (subject to Government's policy) or M&A;
 - e. If none of the above are commercially feasible, the operator has the option to surrender such spectrum.
- (ii) Since the NIA gives the successful bidder the right to use the spectrum for assigned period, any forced withdrawal of the same would be a breach of such right. It should be left to the best judgment of the operator on how to effectively use remaining spectrum for any of the options listed above.

Further, RJIL is of the firm opinion that in the current era of auctioned spectrum, the Government should only play the role of a facilitator and let the market forces prevail in spectrum management.

Please let us know should you require clarifications on any of the above responses.

Thanking you,

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


(Kapoor Singh Guliani)
Authorized Signatory





a step ahead

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.

Sistema Shyam TeleServices Limited (SSTL) welcomes the opportunity extended by the TRAI to comment on “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”.

Spectrum caps are introduced as ex ante means to implement competition policy in mobile communications markets. They have been applied to help ensure that no single mobile operator, or a very small number, can acquire all or almost all spectrum on offer either at the time of initial spectrum awards or in subsequent mergers or deals between operators. The goal is to prevent operators from gaining positions through large holdings of a scarce resource, i.e. spectrum, which they might then exploit anti-competitively so as to cause market failures with deleterious effects for customers and overall economic welfare.

Our issue wise submission is as herein below:

- (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?**

Yes, the capping should still remain and the formula for calculating the capping should ensure adequate competition in each service area. Accordingly, we propose the following spectrum capping rules:

Capping rule in 900, 1800, 2100, 2300 & 2500 MHz band:

We agree with the spectrum holding capping rule defined in Notice Inviting Applications (NIAs) dated 9th January 2015 for auction of spectrum and reiterate that the spectrum cap for each operator in each of the service areas in any of the above mentioned bands should be calculated as 50% of the total spectrum assigned for commercial use, both uplink and downlink, for telecom services in the respective band.



a step ahead

For the purpose of arriving at spectrum cap in a particular band, the total spectrum assigned in a service area in the respective band is considered as the sum total of the current holdings of all the telecom operators in the respective band in the respective service area plus the spectrum put to auction in the respective band in that particular service area.

Capping rule in 800 MHz band:

The spectrum capping rule in respect of 800 MHz band should be as per DoT guidelines dated 20th February 2014, for transfer/merger of various categories of Telecommunication service licences/authorization under Unified Licence (UL) on compromises, arrangements and amalgamation of the companies, i.e. **a cap of 10 MHz** because the spectrum earmarked/assigned in 800 MHz band is very low for deploying the futuristic technologies.

Capping rule in other bands:

We believe that the capping will undergo a change as and when new bands like 700 MHz will be added and made available for commercial use.

Overall Capping rule:

The overall cap for each of the service areas should be calculated as 25% of the total spectrum assigned for commercial use in the 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz and 2500 MHz bands.

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.

- (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 economical viable services can be provided with a spectrum holding less than 5.0 MHz? If so, TRAI may suggest the terms and condition for taking back such spectrum.**

The successful bidders who holds less than 5 MHz in a LSA and are unable to acquire additional spectrum in subsequent auctions should be allowed to explore other opportunities to spruce up their holdings to spectrum levels that permit provisioning of economical viable services. The policy on spectrum sharing and trading is in 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. The successful bidders who holds less than 5 MHz of spectrum and who are not able to acquire



a step ahead

additional spectrum in future auction, will have the option of adding spectrum through the trading/sharing route to ensure continuance of their services.

Further, with the march of technology, options like narrow band LTE, carrier aggregation are possible as specifications are being drawn by ITU in this direction.

It is pertinent to mention that it is the responsibility of the service provider to meet rollout obligation and QoS parameters. In view of above it should be left to the successful bidder to figure out the ways to provide economical viable service with a spectrum holding of less than 5 MHz.

15 June 2015

Shri Jaipal Singh Tomar

Joint Advisor (NSL-II)

Telecom Regulatory Authority of India

Mahanagar Doorsanchar Bhawan

Jawahar Lal Nehru Marg

New Delhi 110002

Subject: Issues relating to Spectrum Cap and minimum Spectrum holding by TSPs

Dear Sir,

Please find our point wise response to the issues raised vide your letter dated 4th June 2015.

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?

Response: The spectrum cap has been defined in the Y2012-2015 auctions on the basis of TRAI's recommendation. All service providers have procured spectrum basis the terms defined in the NIA, we recommend that there should not be any change in the spectrum caps at this stage.

The spectrum caps should be uniformly defined across different policy documents for substitutable services. The list of definitions for spectrum cap is enclosed as **Annexure I** for your ready reference. Any change in one policy should be correspondingly modified in other policy documents to prevent arbitrage.

The spectrum cap should be computed on the basis of existing allocations + spectrum put to auction (excluding expiry spectrum if any). Any spectrum available with WPC and not put to auction should not be used for any calculation as this information is not in public domain.

(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?

Response: No, only the spectrum allotted and put to auction should be used for calculation of spectrum caps. The spectrum which is possibly lying with the department is not in public domain, we have no visibility as to why it has not been put to auction. In certain cases this unused spectrum with the department may be reserved for a class of users and in other cases it may not be put to auction for many years to come. In yet other cases these spectrum may be mired in legal conflicts. The reasons and timelines are not transparently known to all TSPs. Such arbitrary calculation will lead to speculation and market manipulation.

This may suitably be overcome by declaring a spectrum roadmap and corresponding spectrum caps for future. Here we re-iterate that the present caps should be calculated on present allocations/auctions only.



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CIN: U64200DL2012PTC231991

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 can they deal with the spectrum?

Response: Those service providers which fall under the category of 'existing licensee' in any auction for a given spectrum band have the option to purchase a minimum number of blocks (1.25 Mhz in 2012 auctions, 0.6MHz in subsequent auctions in 1800 band). Almost all operators have purchased top-up spectrum <5Mhz in Y2012, 2014, 2015 auctions. Telewings have also purchased 5MHz in Y2012 and 7.4Mhz of top-up spectrum in Y2014. Thus we have liberalized spectrum with validity till Y2032 and 2034 in the same circle. The case of all service providers will be similar.

In the present scenario when we have procured spectrum at high market price and there is a provision of minimum presumptive AGR. These conditions are sufficient disincentive against any spectrum hoarding.

Service provider has sufficient options under the spectrum trading and spectrum sharing guidelines to be announced soon to dispense this asset. There is no commercial incentive to the service provider to hold onto a commercially unviable asset for the purpose of hoarding.

Thus it should be best left to market forces.

- (ii) 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.

Response: The service provider should have the option to trade or share its spectrum based on the market forces.

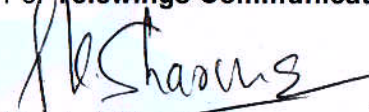
As an alternative the policy of "buy-back" of spectrum in the last year of expiry can be announced by the department. This can also be effectively utilized to synchronize the expiry of all spectrum in a particular band on one/ two uniform lots. The increase in market value of spectrum basis the SBI PLR as applicable in case of partial spectrum defined in NIA should apply to the rates at which department should "buy-back" the spectrum.

We hope that the Authority shall find our inputs useful.

Thanking you,

Yours sincerely,

For **Telewings Communications Services Private Limited**



(Pankaj Sharma)
Sr. Vice President and
Head Corporate Affairs

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Annexure - I**The chronology of introduction of Spectrum Cap****MOC press release dated 15 Feb 2012**

11. The prescribed limit on spectrum assigned to a service provider will be 2X8MHz/ 2X5MHz for GSM/ CDMA technologies respectively for all service areas other than in Delhi and Mumbai where it will be 2X10MHz/ 2X6.25 MHz. However, the licensee can acquire additional spectrum beyond prescribed limits, in the open market, should there be an auction of spectrum subject to the limits prescribed for merger of licences.

TRAI recommendation dated 23rd April, 2012

"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"

NIA dated 28th September, 2012**3.2 Associated Eligibility Conditions**

(vii) For the purpose of this auction, a cap of 25% of the 'total spectrum assigned' in all bands put together and 50% within a given band in each service area shall apply for total spectrum holding by each operator. For the purpose of calculation of the cap in this auction, the spectrum put to auction, excluding top up spectrum, would be included in the 'total spectrum assigned'. This cap will be applicable as on the last date of application for participating in Auction.

License amendment No 20-281/2010-AS-I Voll-VI dated 26 Nov 2013 to CMTS/UASL license.

"The total spectrum held by the licensee shall not exceed 25% of the spectrum assigned, by way of auction or otherwise, in the concerned service area or spectrum cap of 50% in a band for access services. The spectrum assigned in GSM/CDMA/3G/BWA band shall be counted for this purpose. "

NIA dated 13 Dec 2013**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

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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 November, 2014 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 1800MHz band is calculated as 50% of the Total Spectrum Assigned, both uplink and downlink, for Telecom services in 1800MHz band.

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

It may be noted that the Spectrum which is expiring in November, 2014 will not be considered in the Current Holdings. The same spectrum will only be considered as the Spectrum put to auction.

NIA dated 9 Jan 2015

- Same as above

Guidelines for Transfer/ Merger dated 20th Feb, 2014

- k) 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.





PB/VIL/35
15 June 2015

Mr. Jaipal Singh Tomar
Joint Advisor (NSL-II)
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg, Old Minto Road
New Delhi-110002

Dear Sir,

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.

At the outset we would like to submit that Vodafone and its Group companies have participated in the recent auctions conducted in March 2015.

We have already submitted before the Hon'ble Supreme Court that the auction process was a composite complex process conducted through Simultaneous Multiple Round Ascending e-auction process i.e. the auction was conducted simultaneously for all service areas and all spectrum bands (in 800MHz, 900MHz, 1800MHz and 2100MHz). Any modification to the conditions in the NIA now may disturb the auction results and rationale of the bidding process/strategy adopted by the successful bidders.

Against the above backdrop, we would like to respond to the queries that have been raised by the Authority for our views and suggestions, as below:

TRAI Query:

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?**

Vodafone India Limited (CIN-U32200MH1992PLC119108)

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Vodafone Response:

- a. Yes. We believe that the capping should still remain and the interpretation and application should be as already laid down by the DoT, i.e. as a percentage of the spectrum assigned and fresh spectrum being auctioned in the concerned service area for access services.
- b. In principle, the spectrum caps should be progressively increased, but even if maintained at the same percentage of spectrum, there cannot be any instance where spectrum legitimately acquired in an auction process is jeopardized by a subsequent surrender of spectrum by any operator or for any other reason whatsoever. Thus, a cap in terms of absolute quantum of spectrum, once decided and conveyed by DoT cannot be varied downwards for any reasons, whatsoever.
- c. Further, we submit that all commercially available spectrum should be put to auction. That the caps ought not to be computed on commercially available spectrum, available with the department but not put to auction, as there could be valid concerns on why the spectrum was not put to auction and ambiguity around when it could put to auction and in such an environment including such spectrum in the calculation for caps will be inappropriate.

TRAI Query**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 can they 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 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.

Vodafone Response:

- a. We understand that this query is raised in the context of the issue that an operator with 4.4MHz who acquired 0.6MHz (for 20 years) through current auctions, could be left with only 0.6MHz, when the 4.4MHz expires at the end of its license prior to 20 years.
- b. In this regard, it is respectfully submitted that the above situation confronted many of the extension licensees, who had residual spectrum of less than 5MHz [apart from their extension spectrum] and were compelled to re-acquire spectrum as "new licensees" to ensure continuity of their business. In fact, in the case of our Maharashtra Circle, we had a residual spectrum of only 1.25MHz in 1800MHz.
- c. It is submitted that it is not correct that no economical viable services can be provided with a spectrum holding less than 5.0MHz. While no services are possible with 0.6MHz, the

Authority is aware that the initial start-up spectrum given to GSM was 4.4MHz and 2.5MHz in case of CDMA and services provided with these allocations.

- d. We would also like to respectfully point out that Para 3.11 of the NIA dated 9 January 2015 states, inter alia, that "If at any stage, the spectrum allotment is revoked, withdrawn, varied, surrendered or curtailed no refund will be made." It is submitted that the terms of the NIA are final and binding on all parties and cannot be varied.
- e. We would further like to submit that the above problem can be addressed through introduction of spectrum trading and spectrum sharing. We learn from media reports that the Telecom Commission has sent its recommendations to the Cabinet in this regard and we look forward to the expeditious introduction of spectrum trading and spectrum sharing in the Indian market.

Warm Regards



P. Balaji

Director - Regulatory & External Affairs