

Bharti Airtel's Response to TRAI's Consultation paper on Auction of Spectrum

We welcome TRAI's initiative of releasing a consultation paper on "Auction of Spectrum".

Pursuant to its judgment dated Feb 2nd 2012, the Hon'ble Supreme Court of India directed TRAI to make fresh recommendations for grant of licence and allocation of spectrum in 2G band in 22 service areas, by auction. Consequently, TRAI came out with a "pre consultation paper" which was responded to by the industry.

TRAI has now come out with a detailed "consultation paper" on Auction of Spectrum. We appreciate the efforts put in by TRAI to ensure timely release of the auction guidelines and we are confident that TRAI will ensure a fair, transparent and non-discriminatory approach while formulating the policy on auctioning/distributing spectrum.

In the past, TRAI had clearly indicated that the issue of refarming would be discussed in a separate detailed consultation paper. However, the issue of "**Refarming of Spectrum**" in 800/ 900 MHz has been raised in this very "consultation paper". We believe that, combining the issue of refarming with the auction of 2G Spectrum, will only undermine the criticality of this issue. We would also like to highlight, that "Refarming" requires detailed deliberation on a large number of related issues such as existing customers availing the services on 900/800 MHz networks, financial implications both on operators as well as customers, sustainability of Industry, network reengineering and optimization etc. In light of the above, we would like to submit that refarming should not be taken up at this stage. Instead it should be discussed in a detailed consultation process wherein all the above issues may be deliberated extensively.

TRAI has also asked for inputs from operators wrt the 700 MHz band. While spectrum in the 2G band will be required to secure the provision of mobile voice services for years to come, 700 MHz band is a digital dividend band, which will be used for IMT Advance services. There is no linkage between the auction of 700 MHz band and any kind of refarming of spectrum in 800/900 MHz band. We therefore recommend that auction of 700 MHz spectrum should be done as soon as possible and preferably along with auction of 2G spectrum.

Considering the paucity of time, larger implications of the Hon'ble Supreme Court judgment and specific direction by the Hon'ble Supreme Court to make recommendations for grant of license and spectrum in the 2G bands, we request TRAI to ensure that the focus of the current "consultation paper" is limited to the auction of Spectrum in 2G bands and any other spectrum which is readily available for assignment e.g. 700 MHz band.

The para-wise comments below may be read in continuation to our response to the pre-consultation paper on "Allocation of Spectrum in 2G band in 22 Service Areas by auction" already submitted to the Authority :

1. How can the various principles outlined by the Hon'ble Supreme Court in various observations brought out in para above be sufficiently incorporated in the design of spectrum auction?

Bharti Airtel's Response:

The Hon'ble Supreme Court vide its order dated 2nd Feb, 2012 has laid down certain important principles, which should guide the auction design:

- a. *The doctrine of equality, which emerges from the concepts of justice and fairness, must guide the State in determining the actual mechanism for distribution of natural resources (Para 69)*
- b. *No attempt should be made to scuttle the claim of worthy applicants (Para 76),*
- c. *the State to ensure that a non-discriminatory method is adopted for distribution and alienation (Para 76),*
- d. *A duly publicized auction conducted fairly and impartially is perhaps the best method (Para 76),*
- e. *The procedure adopted for distribution is just, non-arbitrary and transparent (Para 69),*
- f. *People be granted equitable access to natural resources and/or its products (Para 69),*
- g. *The process of distribution must be guided by the constitutional principles including the doctrine of equality and larger public good (Para 72),*
- h. *One of the main objectives of NTP 1999 was that spectrum should be utilized efficiently, economically, rationally and optimally and there should be a transparent process of allocation of frequency spectrum, which cannot be overlooked (Para 73).*

Hence, it is essential that all existing operators and new entrants be **allowed** to participate in the auction. Such open auction process will be fair, impartial, and non-

discriminatory, as it will offer equitable access to worthy applicants in the larger public good. Any policy contrary to above will not only disregard the principles set by Hon'ble Supreme Court but will also invite controversies.

2. What are the key objectives to be kept in mind in the auction of the spectrum?

Bharti Airtel's Response:

The auction design / process should have the following objectives:

- ✓ **First** objective - to ensure that the auction meets the principles laid down by the Hon'ble Supreme Court, as enunciated in our response to question no. 1;
- ✓ **Second** objective - to ensure that it meets the objectives of the NTP 1999 and Draft NTP 2011 ;
- ✓ **Third** objective - to ensure that sufficient spectrum is made available for auction. This will help the sector to discover the true value of the spectrum;
- ✓ **Fourth** objective - to ensure that available spectrum is not fragmented and hence utilized efficiently.

3. What should be the amount of spectrum which should be auctioned?

Bharti Airtel's Response:

Telecom operators in India are running mobile networks with significantly less allocated spectrum as compared to their international counterparts. No additional spectrum has been allocated in the last few years despite the phenomenal growth in the subscriber base resulting in an adverse impact on the quality of service. There is no reason to reserve spectrum when there is sufficient demand in the market and operators are ready to pay the market determined price.

Moreover, artificial scarcity of the spectrum will lead to inflated value of spectrum, which would ultimately be passed onto the customers which is against the very objectives of National Telecom Policy. DoT in its draft NTP-2012 has already indicated that a large amount of spectrum would be made available for telecom use in near future. Therefore, we believe that blocking of this precious resource is neither economically prudent nor does it serves any public good of providing affordable telecom services.

We therefore recommend, that all available 2G spectrum i.e. spectrum belonging to operators whose licenses have been quashed & unallocated spectrum that is available with DoT, should be collectively auctioned.

4. Should the spectrum be liberalised before it is put to auction?

Bharti Airtel's Response:

While we completely support liberalization, we are surprised with this question as in our view, spectrum is already treated as liberalized by the Government. The de facto liberalization of 2G spectrum, can be seen by the fact that the CDMA operators are already providing EVDO services in the spectrum allocated for 2G services.

In our view, spectrum & licence are already technology neutral in India. In fact, this position was reinforced by DoT in the last 3G & BWA auction , wherein it had clearly mentioned that the auction is only for spectrum on which network of any technology can be deployed. Therefore as per our understanding spectrum is already liberalized and its use is limited only by the technology supported in that band and any financial consideration decided by the Government.

The present distinction between the 2G spectrum in 800 MHz and 900/1800MHz band which creates artificial distinction for the purpose of allocation of spectrum and the CAP on spectrum holding by GSM and CDMA/dual operators and results in arbitrage in the spectrum usage charge. This artificial distinction of 800MHz and 900/ 1800MHz has benefited one set of telecom operators over others. For instance, in October 2007, the DoT's decided to levy separate spectrum charge against for GSM & CDMA spectrum separately against its own earlier policy. DoT's M&A 2004 policy states that if any merger takes place between GSM & CDMA operator then for the purpose of spectrum charge, the merged entity would have to pay such charge on combined spectrum. Further, M&A 2004 policy also stated that for the purpose of upper spectrum limit, both CDMA & GSM spectrum would be considered as "total spectrum".

We strongly recommend that 2G Spectrum provided to CDMA operators in the 800 MHz band and used by them for the provision of EVDO services should be withdrawn with

immediate effect. Alternatively, the CDMA operators should be charged for the use of this spectrum at the 3G rates from the date of beginning the provision of EVDO services. Liberalization should not result in regularization of misuse of 2G spectrum by CDMA/dual technology operators. Hence in our view before liberalization of spectrum in 800 MHz band, the CDMA/dual technology operators should be asked to pay for the use of 2G/CDMA spectrum for the purpose of establishing a EVDO networks.

5. **For the refarming of 800 and 900 MHz bands from the existing licencees, which of the three options given above should be adopted? Please elaborate with full justification. AND**
6. **What are the issues that may arise in the above mentioned refarming process?**

Bharti Airtel's Response:

In the past, TRAI had clearly indicated that the issue of refarming would be discussed in a separate detailed consultation paper.

It is submitted that refarming of spectrum in 800/900 MHz band has larger implications and requires detailed deliberation on issues concerning continuity of services to the existing customers, financial implications, network reengineering and optimization etc. Some of the implications of refarming are highlighted below:

- a) **Legal Right:** According to us, operators have a legal right with regards the 900MHz spectrum allocated to them for the initial as well as extended licence period. Hence, any contrary proposal for unilaterally taking away the assigned spectrum may have legal implications. Therefore, any proposal of refarming needs detailed deliberations with the stakeholders on all the possible legal issues arising from the refarming and it should be done only through a mutual agreement.
- b) **Migration of existing customer to an alternate spectrum/technology:** Even after launch of 3G services across the world for several years and in India for more than a year, less than 5% of the total handsets/CPEs are compatible with 3G network and LTE services are yet to be launched. Therefore, the bulk migration of millions of existing 2G customers, which are being served from the network using 900MHz

spectrum, to a 3G/LTE or any other alternate technology network is not possible in near future.

- c) **Maturity of the related ecosystem:** The ecosystem for any alternate technology such as affordable handsets, ready availability of network equipment, core infrastructure, value added services etc have also not attained the maturity to support such a large customer base.

- d) **National Investment:** Unlike the negligible utilization of 700MHz by various user such as PSU and Doordarshan etc. (Consultation Paper, p. 9-10), the private telecom service operators are using the spectrum efficiently by way of extensive roll-out of networks and are serving more than 800 million customers. Getting the same vacated from telecom service providers for the purpose of refarming will require the operators to make huge investments for building-up network infrastructure in the 1800 MHz band. The cost of migration of the network from 900 MHz to the 1800 MHz band, if not funded by the Government, would ultimately have to be recovered from the customers, leading to a collective loss of the nation and hence will be contrary to the larger public interest.

- e) **Design of Network:** Designing of network is done basis the spectrum allocated and the availability of sites in any service area. Change to an alternate frequency, from 900MHz band to 1800MHz band, requires a complete re-engineering/re-optimization of the network with:
 - i) A substantial change in the location of sites which may or may not be available. Also, the availability of the sites is very time consuming in metro as well as other important cities.
 - ii) The telecom equipment also needs to be geared up for emission and reception of the changed frequencies which requires change in the radio equipment.
 - iii) SACFA clearances for new as well as existing BTS locations.
 - iv) Rearranging the optical fiber to the sites which are connected by fiber.
 - v) Reengineering the micro wave systems which are connecting the BTS sites with BSC.

- f) **Service Disruption:** Refarming, reallocation and reorientation as per the new frequencies entails an ocean of a change which will not only disturb the service to a

great disadvantage of the public at large but will also require a substantial time to stabilize the network configuration for a good quality service.

- g) **Meeting Customer Expectations:** Over a period of time, the customers have become used to a certain degree of quality of services and expect the same to be continued in future. Large scale disruption/ degradation in services owing to the refarming of spectrum will result in huge customer dissatisfaction where the operators will not be able to live upto the tacit promises and commitments in the form of uninterrupted and good quality of services.

Further, due to the actual usage of spectrum described above, the refarming of frequencies in the 900 MHz band for mobile services would not only devalue the investments in network infrastructure that have already been made but would also significantly increase the existing operator's cost to meet the subscriber demand for mobile services. Airtel and other existing operators would be forced to significantly roll out mobile infrastructure in the 1800 MHz band to migrate voice and 2G data service provision from the 900 MHz band to the 1800 MHz. The higher costs for voice and data services due to refarming would have to be borne by the customers.

In light of the above implications and strict timelines for implementation of the decision of Hon'ble Supreme Court of India, we propose that the issue of refarming be dealt with at a later stage via a detailed consultation process/paper as proposed by TRAI earlier.

- 7. For new technologies e.g. UMTS/LTE, 5 MHz is the minimum amount of spectrum required. Certain licencees have only 4.4 MHz spectrum in 900 MHz band and 2.5 MHz spectrum in 800 MHz band. What are the possible options in case of such licencees?**

Bharti Airtel's Response:

The spectrum allocation of 4.4 MHz spectrum in 900 MHz and 2.5 MHz spectrum in 800 MHz may be continued as of now and should be discussed in the detailed consultation paper on Refarming of Spectrum.

- 8. Some GSM spectrum allocations may be interleaved between operators; to avoid fragmentation, reconfiguration between operators may be required. Whether**

frequency reconfiguration is required and what are the challenges and possible solutions?

Bharti Airtel's Response:

We strongly believe that the harmonization of frequencies helps in efficient use of spectrum. The GSM spectrum presently allocated to the operators is fragmented. The harmonization of the frequencies will be required to club the frequencies which have been allocated to the operator randomly, so that the operator gets contiguous spectrum which can be used in a more efficient manner. Frequency harmonization will certainly provide more capacity by avoiding large number of guard bands and providing larger blocks of spectrum. This will also simplify the frequency planning in future.

The harmonization of frequencies requires the following:

- Extensive frequency planning.
- Coordination among different operators as the timing will have to be synchronized in such a way that one frequency is being used only by one operator at any point of time.
- Network re-optimization in metro cities and possibly in other towns where the inter site distances are relatively lower
- Additional cost implications due to Re-planning and Re-optimization of the network

9. Should the refarming of spectrum in 800/900 MHz bands be dealt independently or should a comprehensive approach be adopted linking it with the availability and auctioning of 700 MHz band?

Bharti Airtel's Response:

Refarming of Spectrum in 800/ 900 MHz band and auctioning of 700 MHz band are two different issues for the reasons below:

- 900 MHz spectrum should, at present, not be refarmed (see the response to Questions 5 and 6 above). This spectrum is being used for existing 2G customers and it may take very long time for an operator to change the network from 2G to IMT-Advanced. Furthermore, such a migration of network from 2G to LTE/IMT-A is

largely dependent on the choices exercised by the voice/GSM customers to switch over to the new LTE/IMT-A network. Therefore, the operators planning to convert their 2G spectrum/networks to LTE/IMT-A network will have to face considerable delays and will be put to a competitive disadvantage compared to operators with 700MHz spectrum who can start the provision of IMT-A services upon allocation of spectrum without any delay.

- As per the ITU-APT band plan, the 700 MHz band has been reserved for IMT-Advanced networks. The IMT-A, like the LTE standard, are primarily designed to enable the provision of mobile data/broadband services and do not replace the GSM/2G networks. The 700 MHz band which has also been declared as a digital dividend band for the provision of IMT-A services, is very critical for operators to provide mobile broadband services. Any linkage of the auctioning of 700 MHz spectrum with a refarming of 900 MHz spectrum will put existing operators in a disadvantageous position and will also deprive more than 800 million customers being served by these operators from the benefit of digital dividend spectrum.
- Refarming of the 900 MHz spectrum would require an equivalent spectrum to be allocated in some other band so that a proportional and efficient network can be deployed in order to continue serving the existing subscriber base. Furthermore, it has to be considered that additional spectrum will be required to meet the demand for voice services of new customers which continually join this network. Also, as mentioned in our response to Questions 5 and 6, the refarming of spectrum has many more challenges and connected issues which need to be thoroughly addressed before it is implemented to avoid negative effects on the existing customers. The 700 MHz spectrum, on the other hand, is currently not being used for any telecom access services therefore it should be made available to all operators on a fair, equitable and non-discriminatory basis.
- Any allocation of 700 MHz spectrum which is linked to frequency refarming would result both in the creation of a non-level playing field and in lower revenues for the Government due to a substantial reduction of competition.

Therefore, in line with international practices and public interest the issue of refarming of 800/ 900 MHz spectrum and the auction of 700 MHz spectrum should be dealt with separately.

10. Which of the two approaches outlined above be adopted?

Bharti Airtel's Response:

We do not agree with any of the approaches suggested in consultation paper. The spectrum in the 800/ 900 MHz and 700 MHz bands has to be treated differently for the following reasons:

- **900 MHz/800 MHz (2G Band):** is being used for existing 2G customers and it may take very long time for an operator to change the network from 2G to LTE/IMT-Advanced. Furthermore, such a migration of network from 2G to LTE/IMT-A is largely dependent on the choices exercised by the voice/GSM customers to switch over to the new LTE/IMT-A network.
- **700 MHz:** As per the ITU-APT band plan, the 700 MHz band has been reserved for IMT-Advanced networks. The IMT-A, like the LTE standard, are primarily designed to enable the provision of mobile broadband services and do not replace the GSM/2G networks.

For the aforesaid reasons, it does not make sense to link the allocation of spectrum in 700 MHz band with spectrum holding in 800/900 MHz. Any such restriction would only result in reduced competition and consequently lower revenue to the exchequer.

11. When should 700 MHz spectrum be auctioned?

Bharti Airtel's Response:

It is understood from the consultation paper that 2x45 MHz spectrum in 700 MHz band is likely to be put for auction. We would recommend that the auction of the complete 2x45 MHz spectrum in 700 MHz band is done as soon as possible, preferably along with

the auction of spectrum in 800/1800 MHz, and consequent to availability of the complete 2x45 MHz of interference free spectrum.

12. Should the auction in 700 MHz band be linked with the granting permission for the liberalised use of 800/900 MHz band?

Bharti Airtel's Response:

No, the auction in 700 MHz band should not be linked with any liberalization of 800/900 MHz band. The digital dividend spectrum, i.e. 700 MHz spectrum is a new spectrum which is required by any operator planning to launch mobile broadband services irrespective of whether or not they already operate a GSM/ CDMA based network. Since, the usage of frequencies in the 800/ 900 MHz band and the 700 MHz band differs considerably. Therefore there is no justification for linking the auction of 700 MHz band with any kind of liberalization of the 800/900 MHz band.

13. How much spectrum in the 700 MHz band should be put to auction initially and what should be the amount of spectrum which a licensee should be allowed to win in that auction?

Bharti Airtel's Response:

We believe that all available spectrum in the 700 MHz band, i.e. 2x45 MHz, should be auctioned as there is no economic justification for keeping the scarce resource idle when it can be better utilized by putting it to use to increase broadband penetration and consequently the growth of the country and also to earn additional revenues for the Exchequer.

For an efficient deployment of LTE/IMT-A network, a **minimum of two blocks of 2X5 MHz (i.e. 2x10 MHz)** spectrum should be allocated to an operator. The availability of sufficient spectrum for mobile broadband will be critical to achieve speeds of more than 100 Mbps in IMT-Advanced broadband access. The advanced standards in future such as LTE 3GPP rel 10 will require further additional spectrum. We therefore propose that there should be no CAP on the maximum number of blocks that an operator can bid.

Should TRAI wish to provide for a certain number of mobile broadband operators with access to 700 MHz spectrum, it may limit the numbers of operators **to not less than 3** in a service area providing mobile broadband/ IMT –advanced services and at the same time ensure a sufficient level of competition in this service segment. Therefore, service providers shall be allowed to bid for higher quantity in the blocks of 2x5 MHz, subject to condition that the **minimum number of operators having spectrum in 700 MHz band does not fall below 3** in any service area.

14. What should be the structure of the auction process?

AND

15. Should auction be held in single stage or multi stage?

Bharti Airtel's Response:

All available spectrum in 1800 MHz, 800 MHz and 700 MHz band be put up for auction. However, in case of non-availability of spectrum in 700 MHz band presently and in order to timely comply the directions of Hon'ble Supreme Court of India, the Government should proceed with the Auction of 1800 MHz/ 800 MHz band alone.

We recommend the Multi-band Simultaneous Ascending Auction similar to the one followed for the auction of 3G/BWA with the following changes/suggestions:

- a. The spectrum auction in various bands i.e. 700 MHz, 800 MHz and 1800 MHz should be held simultaneously for all service areas. Such a simultaneous auction would not only result in revenue optimization to the Government but will also provide the flexibility to choose between various types of spectrum available in any service area.
- b. The auction will involve 2 stage:
 - **Stage 1:** would be the clock round to award the spectrum blocks in 1800 MHz, 800 MHz and 700 MHz band to the winning bidders.

However, unlike auction of 3G/BWA, the simultaneous closure of all service areas should not be mandated, as the same is prone to excessive/irrational increase in the bid price for a circle, where even the demand supply gap is nil, due to the activity in some smaller circle. Therefore, we recommend that the individual circle/service areas should be allowed to close if the gap, between

demand and supply for all type of spectrum i.e. 700/800/1800 MHz, put to auction in that service area, is either **nil or negative**.

The clock round prices for spectrum blocks in a service area should only increase when the excess demand is positive (greater than zero). It should be noted that during the 3G/ BWA auction, the prices of spectrum blocks in a particular circle were made to increase even when the excess demand was zero. This increase in the prices/bid amount for the spectrum in a service area, during consecutive rounds despite its demand and supply being balanced/ zero, due to the activity in some other circle. Such an increase can result in arbitrary increase in prices of some circles. **Therefore, the proportionate price increment should only be applied when the excess demand is one or more.**

- **Stage 2** will be the assignment round for the assignment of specific frequencies in the 1800 MHz/ 800 MHz/ 700 MHz spectrum bands to the winners of spectrum blocks in the 1800 MHz/ 800 MHz/ 700 MHz bands respectively.

In order to ensure the better utilization of spectrum, the auction winner should be allowed to swap slots to get continuous blocks of spectrum. The auction should be a single auction wherein all the existing operators as well the potential new entrants will be allowed to bid. The bidding should be done by all i.e. existing operators and potential new entrants, in multiples of spectrum blocks in 1800 MHz, 800 MHz and 700 MHz (The block size in 1800 MHz/ 800 MHz and 700 MHz have been deliberated in our response to Question 17 and 18).

The existing operators as well the new entrants should be allowed to bid for the number of blocks as indicated in the table below;

Spectrum Band	Block Size	No of Blocks Allowed during the Auction			
		Operators already startup Spectrum (Existing Operators)		Operators requiring Startup Spectrum (New Entrants)	
		Minimum	Maximum	Minimum	Maximum
1800 MHz	1 MHz	1	5	4	5
700 MHz	5 MHz	2	No CAP	2	No CAP
800 MHz	1.25 MHz	1	2	2	2

16. Should there be a simultaneous auction for spectrum in 800 and 1800 MHz bands?

Bharti Airtel's Response:

Yes, as indicated in to Question 14 and 15, there should be simultaneous auction of spectrum in 1800 MHz and 800 MHz.

17. What should be the block size of the spectrum?

AND

18. Should the block size be dependent on the frequency? If so, what should be the block size in each band?

Bharti Airtel's Response:

Yes, the block size should be dependent on the frequencies. We recommend the block sizes in different frequency band as below:-

A) 700 MHz:

We propose that the spectrum block size in 700 MHz band be kept at 2x5 MHz. For an efficient deployment of LTE/IMT-A network, a minimum of 2 blocks of 2x5 MHz (i.e. **2x10 MHz**) spectrum should be allocated to an operator. The availability of sufficient spectrum for mobile broadband will be critical to achieve speeds of more than 100 Mbps in IMT-Advanced broadband access. The advanced standards in future such as LTE 3GPP rel 10 will require further additional spectrum. We therefore propose that there should be no CAP on the maximum number of blocks that an operator can bid. The higher quantity in the blocks of 2x5 MHz may be allocated subject to condition that the **minimum number of operators having spectrum in 700 MHz band does not fall below 3** in any service area.

B) 1800 MHz:

For the spectrum in 1800 MHz band where the operators will be bidding both for startup as well as additional spectrum simultaneously, we propose that the spectrum block size be kept at 2x1 MHz. The spectrum block size of 2x1 MHz will allow for an efficient and non-interfering use of spectrum. It will also provide flexibility to an

existing operator, who only requires the additional spectrum over its existing spectrum, to bid for a lower quantity in the auction process.

Any **new entrant** who is bidding for spectrum may be allowed to bid for a **minimum of 4 blocks** and a **maximum of 5 blocks**. The minimum of 4 blocks of 2X1 MHz may be required for a new entrant to:

- a) establish a viable business case
- b) secure efficient use of spectrum
- c) allow for a good coverage and capacity network.

The **existing operator** may be allowed to bid for a minimum of **1 block of 2x1MHz** and a maximum of **5 blocks of 2x1MHz**.

C) 800 MHz:

For the spectrum in 800 MHz band wherein both the operators will be bidding for startup as well as additional spectrum simultaneously, we propose that the spectrum block size be kept at 2X1.25 MHz. The spectrum block size of 2X1.25 MHz will allow for an efficient and non-interfering use of spectrum.

Any **new entrant** who is bidding for spectrum may be allowed to bid for a **minimum/maximum of 2 blocks**.

The **existing operator** may be allowed to bid for a either **1 or 2 blocks of 2 x 1.25 MHz**.

19. Should there be a cap on amount of spectrum one can bid? If so, what should it be?

Bharti Airtel's Response:

As deliberated in the response to Question 18:

- **700 MHz:** There should be **no CAP** on the amount of spectrum one can bid in 700 MHz band as the availability of a larger block for mobile broadband will be critical to achieve speeds of more than 100 Mbps in IMT-Advanced broadband access. However, in order to have sufficient competition, a minimum of 3 bidders should be allocated spectrum.
- **1800 MHz:** the CAP on bidding quantity should be **2x5 MHz** for existing operator as well as new entrant.

- **800 MHz:** the CAP on bidding quantity should **2x2.5 MHz** for existing operators as well as new entrants.

20. Should there be a separate cap on the total amount of spectrum one can hold; if so, what amount should it be?

Bharti Airtel's Response:

The Government has announced a policy which allows an operator to hold a maximum of 10 MHz spectrum in 800 MHz band and 25% of the allocated spectrum in 900/ 1800 MHz band.

This policy of separate CAP on 800 MHz and 900MHz/ 1800 MHz is discriminatory and tends to favour dual technology operator who can independently hold 10 MHz of spectrum in 800 MHz band along with 25% of the allocated spectrum in 900/ 1800 MHz band where as a standalone GSM operator is allowed to hold a maximum of 25% of the allotted spectrum in 900/ 1800 MHz.

This anomaly creates a serious non level playing field between the GSM and CDMA/dual technology operators and hence needs an early resolution. We would therefore recommend a common CAP of 25% of the total 2G spectrum to be applied for combined spectrum holding in 2G bands i.e. 800 MHz, 900MHz and 1800MHz

21. Should there be a cap on the amount of spectrum one can hold in respect of sub-1 GHz spectrum? If so, what should it be?

Bharti Airtel's Response:

No, there should not be any combined cap on the amount of spectrum one can hold in sub-1 GHz band. The spectrum in the 800/ 900 MHz and 700 MHz bands has to be treated differently for the following reasons:

- **900 MHz/800 MHz (2G Band):** is being used for existing **2G** customers and it may take very long time for an operator to change the network from 2G to LTE/IMT-Advanced. Furthermore, such a migration of network from 2G to LTE/IMT-A is

largely dependent on the choices exercised by the voice/GSM customers to switch over to the new LTE/IMT-A network.

- **700 MHz:** As per the ITU-APT band plan, the 700 MHz band has been reserved for IMT- Advanced networks. The IMT-A, like the LTE standard, are primarily designed to enable the provision of mobile data/broadband services and do not replace the GSM/2G networks. The 700 MHz band which has also been declared as a digital dividend band for the provision of IMT-A services, is very critical for operators to provide mobile broadband services.

Therefore, for the aforesaid reasons, it does not make sense to cap spectrum holding “in the sub-1 GHz band” as the present usage of frequencies in this band differs considerably between frequencies in the **800/900 MHz band** and the **700 MHz band**.

22. Who all should be eligible to participate in the auction?

- a. Only licensees whose licences have been cancelled;**
- b. Only eligible applicants as on 10.01.2008;**
- c. Only licensees whose licences have been cancelled and all new eligible entrants at the time of auction; or**
- d. Open to all including the existing Licensees.**

Bharti Airtel’s Response:

1. We understand from some media reports that some of the affected operators have been pushing that the auction be restricted to those operators whose licences stand quashed;

We firmly believe that such suggestions are contrary to the Hon’ble Supreme Court order and DoT’s press release dated 29th Jan.’11, on the following grounds:

- In its judgment, the Hon’ble Supreme Court has directed TRAI for the following:
“Keeping in view the decision taken by the Central Government in 2011, TRAI shall make fresh recommendations for grant of licence and allocation of spectrum in 2G band in 22 Service Areas by auction, as was done for allocation of spectrum in 3G band.
- The press release of the DoT dated 29th Jan.’11 , states:

“In future, the spectrum will not be bundled with licence. The licence to be issued to telecom operators will be in the nature of ‘unified licence’ and the licence holder will be free to offer any of the multifarious telecom services. In the event the licence holder would like to offer wireless services, it will have to obtain spectrum through a market driven process. In future, there will be no concept of contracted spectrum and, therefore, no concept of initial or start-up spectrum. Spectrum will be made available only through market driven process.

The relevant extracts from the Hon’ble Supreme Court’s judgment and DoT’s press release dated 29th Jan.’11 clearly establish the following:

- In the auction scenario, the concept of “initial spectrum” or “startup spectrum” does not exist;
- The auction recommendations must cover the spectrum allocations to all the eligible participants.

Therefore in the upcoming auction process, no concept of “start-up spectrum” or “initial spectrum” can be applied. Thus, no artificial distinction should be created between “start-up” spectrum and “additional” spectrum.

2. The Hon’ble Supreme Court has also laid down that a fair, transparent and non-discriminatory approach be followed while auctioning/distributing the spectrum and that all eligible persons should get a fair opportunity of competition.

Therefore, all existing UAS / CMTS licencees and potential new entrants should be allowed to participate in the auction.

In case, the auction is restricted to a specific “class of operators,” then it will certainly have the following implications:

- This will be contrary to the judgment / findings of the Hon’ble Supreme Court and will again give rise to the litigation. In fact, in its judgment, the Hon’ble Supreme Court has clearly held that the auction process should be non-discriminatory and non-arbitrary;
- This will favour only one set of players. This will seriously restrict the competition in the bidding process and will create an uneven level playing field, which is not in the interest of the consumers;

- This will seriously suppress the market value of the spectrum due to the participation of the limited number of operators;
- This will raise the issues of fair process, transparency and equal opportunity as were earlier highlighted by the Vigilance authorities such as like CAG, CVC.

Therefore, all existing UAS / CMTS licences and potential new entrants should be allowed to participate in the auction.

23. What should be reserve price per MHz of spectrum in the year 2012 for 1800 MHz band?

Bharti Airtel's Response:

In the consultation paper, TRAI has given various options for reserve price. Our views on the same are as under:-

TRAI's Expert Price for spectrum upto & beyond 6.2MHz:

- Setting a reserve price equal to the administratively derived price of the spectrum is against the fundamental premise associated with auction of spectrum;
- The administrative price derived by TRAI was the final price of spectrum and hence, the reserve price cannot be fixed at that level;
- Further, TRAI also recommended that if auction price were lower than its own administrative price then auction price would prevail as its own price may or may not always match the exact market price. Hence, there was never an intention from TRAI's side to keep its own expert price as reserve price of spectrum for auction.

Reserve Price based on 3G & BWA auction:

Similarly, the final price of 3G & BWA final auction cannot be the reserve price for 2G spectrum.

Reserve Price based on 2G spectrum price:

Out of the 3 methods for reserve price based on 2G spectrum price, we believe that SBI PLR is the most appropriate mechanism for ascertaining the reserve price. SBI PLR being governed by the RBI rates subsumes the inflationary conditions.

Hence, the auction price derived during the year 2001 duly indexed with SBI PLR i.e. Rs. 620.48 Crores per MHz may be used as the reserve price of spectrum.

24. What should be the reserve price per MHz of spectrum in the 700/800/900 MHz bands.

Bharti Airtel's Response:

We recommend that the reserve price for 700/800MHz should be fixed at 1.5 times of the reserve price for 1800MHz i.e. 1.5x Rs. 620= Rs. 930 Crores per MHz for Pan India.

25. Whether the reserve price should be uniform across the country or service area wise?

Bharti Airtel's Response:

We understand that the auction is being conducted service area/circle wise and thus, it is only logical that the reserve price is as per service area and its distribution is proportional to the prices arrived during the year 2001.

26. What should be the roll out obligations linked to the auctioned spectrum?

Bharti Airtel's Response:

The Government has now delinked the spectrum with licence. Hence, the rollout obligations may apply for the start up spectrum.

27. What should be the annual spectrum usage charge for the spectrum being auctioned?

Bharti Airtel's Response:

Internationally, whenever the price of the spectrum is derived through auction, the recurring spectrum charge is levied only to recover the administrative costs. We therefore suggest that the spectrum usage charge for the auctioned spectrum should be uniform and kept at the minimum (i.e. less than 1%) required to recover the cost of administration. This would be in line with the international best practices.

Removal of Anomalies in Spectrum Usage Charges:

There is wide anomaly in the spectrum usage charges paid by a GSM operator vis-à-vis a dual technology operator as indicated below:

Presently, there is an existing arbitrage over 2G spectrum recurring charges. For example, if one 2G operator holds **9.4MHz in 900MHz & 1800MHz** together, they pay the spectrum charge at 6% of their entire revenue. However, another 2G operator holding **9.4 MHz in 800MHz & 1800MHz** pays the spectrum charge at 3%.

On two occasions in the past, including its recommendations in Aug.'07, TRAI had recommended maintaining parity over 2G spectrum recurring charges, by proposing the following scheme of spectrum usage charges for dual technology operators:

4.31 The other issue related to the spectrum charges/fee payable by such operators who have opted for use of multiple technologies for providing access services. Here again, the spectrum charges/fee will be governed by the combined total of spectrum allocated in different technology specific bands, i.e. the slab of spectrum charge/fee would be determined by the combined total of spectrum.

However, this recommendation of TRAI was neither accepted by DoT nor was it referred back to TRAI in compliance with the fifth proviso to Section 11 of the TRAI Act, for its reconsideration;

Thus, this particular action was legally untenable on the part of DoT. The Hon'ble Supreme Court has now stated that the actions taken by DoT between Sept. 07 and March '08, during which this particular decision was also taken, are illegal. Thus, it is necessary that TRAI must now reiterate its earlier stand on spectrum recurring charge on all 2G spectrum bands in line with its earlier stated recommendation, as stated above.

It is important to note that the Government has already lost more than Rs 1,000 crores on this account and is likely to lose another Rs.5,000 crores in next 10 years, if the existing scheme of spectrum usage charges for dual technology operators is not corrected.

At this juncture, where we are moving towards market based pricing of spectrum, these anomalies should be removed and the Spectrum Usage Charges may be fixed at a uniform percentage of AGR.

28. Should the spectrum usage charge be in line with present criteria of escalating charge with the amount of spectrum holding or a fix percentage as was done for 3G and BWA spectrum?

Bharti Airtel's Response:

The Spectrum Usage Charges should be kept at a minimum (i.e. less than 1%) once the Spectrum is allocated via auction and should be a fixed percentage from the revenue earned using the spectrum. This ensures a level playing field and equal costs for all the operators bidding for the spectrum.

The present criteria of escalating charges with the amount of spectrum assigned, lead to different costs for different operators. However, the bidding does not account for these higher recurring charges which an operator might be required to pay to the Government. Hence, the escalating spectrum usage charge on the basis of the amount of spectrum held is not justified.

29. What should be the period of validity of spectrum?

Bharti Airtel's Response:

When the spectrum is assigned through an auction, it is advisable that it is granted for a longer term as the telecom sector requires large investments and the payback takes a large number of years. Therefore, the validity period of the rights to the auctioned spectrum should be **20 years**.

In fact, this issue was debated during the last 3G/ BWA auction as well and thereafter, the spectrum rights were granted for a period of 20 years. As all existing licences were

due for extension prior to the 20 years period of the 3G / BWA spectrum, a specific provision was added to the licence agreement to allow the spectrum usage rights of the 3G/BWA spectrum to continue beyond the expiry of licence. The relevant clause states:

.....23.7(i) Validity period for 3G spectrum: The licensee is authorized to use this spectrum for a period of 20 years from the date of award of right to commercially use the allocated 3G spectrum.....If the validity period of the UAS licence agreement expires before the expiry of the right to use the 3G spectrum for 20 years, awarded by means of the said auction, then the validity of the UAS licence for operation of Unified Access Services by using the said 3G spectrum only, shall be extended to make it coterminous with the validity of the right to use the 3G spectrum, without any charges and in such manner as the Licensor deems fit.....

Therefore, we suggest that the rights to the auctioned spectrum should be given for 20 years. Further, this period will be in line with the TRAI /DoT proposal on Unified Licence regime where TRAI / DoT is already considering the delinking of the spectrum with the licence.

30. What should be the period of price of spectrum?

Bharti Airtel's Response:

There should be an upfront payment for Spectrum for a period of 20 years as has been the practice till now.

31. Should the government allow deferred payment schedule of the spectrum auction fee, or should the payment be upfront in nature?

Bharti Airtel's Response:

So far, it has been the practice of the Government to collect the value of spectrum upfront at the time of auction. Upfront payment will also ensure that only the serious operators participate in the auction. The upfront cost will avoid such instances wherein the operators decides to participate in the auction with a belief that he would be required to pay only for 1-2 years and thereafter the business case would decide such payments.

This would not only impact the rollout of networks but also pose challenge in the recovery of amount accruing out of the auctioned spectrum.

We therefore strongly recommend that the present practice of upfront payment continue for all types of upcoming auction.

In case, TRAI wants to take a contrary view then the following issues should be addressed by the TRAI:

- Such policy should be implemented for all types of upfront payment – be it cost linked to extension of license, the upfront payment for 700MHz spectrum auction or any type of auction. In case, TRAI takes different view for auction of spectrum in different bands then it would adversely impact the business case of those operators who will be required to pay the high charges upfront;
- Moreover, the same policy may be applied to those operators, who have already paid huge sums of money in the lately conducted 3G / BWA auction.

This is also essential from the point of view that the Government might auction the BWA/ 3G spectrum shortly. The old operators have already paid huge upfront payments during the 3G/ BWA auction and are struggling to make a viable business case. In case another operator is allowed to pay deferred payments for the 3G/ BWA spectrum in an auction happening in next 2-3 years for which an old operator have already paid the upfront charges, it will create non-level playing field between two operators, who serve the same market but with differential cost structure.

32. Should Spectrum trading be allowed in India?

Bharti Airtel's Response:

With the spectrum being allocated via auction, spectrum trading may also be allowed. Trading in spectrum will not only reduce the shortage of spectrum due to its free availability on the market place.

33. (a) Among the various models discussed above, in your opinion which model of spectrum trading is best suited for India?

(b) In your opinion is there any other model which can be implemented in India? If yes, please describe.

Bharti Airtel's Response:

Option (a), wherein both the allocation as well as assignment rights can be changed, will be best suited for India and will be in consonance with the future policy of liberalization of spectrum and technology neutrality

34. What should be the eligibility criteria to trade the spectrum?

Bharti Airtel's Response:

Any spectrum allocated through auction or for which the market price has been paid should be allowed to be traded.

35. Whether the spectrum assigned for 3G and BWA services be allowed to trade? If yes, give reasons.

Bharti Airtel's Response:

The spectrum allocated/ assigned for 3G and BWA services should also be allowed to be traded as this spectrum, has been allocated via auction

36. Can spectrum be allowed to be mortgaged for raising capital for telecom purposes?

Bharti Airtel's Response:

No Comments