Clarifications sought from TRAI on its

Recommendations on "Auction of Spectrum" dated 23rd April 2012

No.	TRAI's Recommendations	Clarifications sought from TRAI
1.	The Authority recommends that excess spectrum of 2x2.4 MHz should be immediately taken back from MTNL. (Para 2.8)	The matter is sub-judice. Stay order has been passed by the Hon'ble Supreme Court consequent to appeal against TDSAT judgment on Petition No. 286 of 2007 and notice to BSNL/ MTNL to surrender excess spectrum by BSNL/ MTNL.
		TRAI may note the above.
2.	The Authority recommends that the spectrum which is available in at least 75% of total number of districts of the LSA including the State capital (s) should be considered for allocation through auction. (Para 2.12)	19), means that due to the conditions of partial

S.	Licensed Service Area	Amount of spectrum
No.	(LSA)	partially allotted (MHz)
1.	UP (West)- No. Of	4.4
	Cancelled Licences (4)	
2.	Rajasthan- No. Of	17.6
	Cancelled Licences (4)	
3.	Bihar- No. Of	8.8
	Cancelled Licences (5)	
4.	HP- No. Of Cancelled	4.4
	Licences (4)	
5.	J & K- No. Of	13.2
	Cancelled Licences (5)	

Total Cancelled:-22

In view of Hon'ble Supreme Court decision of 02.02.2012 vide para 81 (iii) wherein a direction has been given "Keeping in view the decision taken by the Central Government in 2011, TRAI shall make fresh recommendation for grant of license and allocation of spectrum in 2 G band in 22 service areas", TRAI may clarify whether auction of the partial spectrum pertaining

		to the cancelled licences in the above LSAs may be conducted after making slots of 5 MHz with residual spectrum available; and its impact on the reserve price. TRAI may be requested to clarify what is the rationale for fixing criteria of 75% of Districts and what would be the effect if the criteria is reduced to 50%. This criteria also needs to be examined with respect to its applicability where more than one state capital fall in the domain of one LSA like UP (W), NE, Maharastra, Bihar, etc. Non availability of Spectrum in the State Capital (s) in the LSAs may also be kept in view.
3.	The Authority recommends that all spectrum to be assigned through the auction process in future shall be liberalised. In other words, spectrum in any band can be used for deploying any services in any technology. (Para 2.34)	different technologies in the same band so that issues such as interference, requirement of guard band etc, to ensure co-existence of different technologies are addressed. E.g. use of LTE and GSM technologies in adjacent slots in
		the 900 MHz band by different service operators. Preliminary studies show that there is a requirement of guard band to ensure interference-free operation and co-existence of different technologies in adjoining slots. Hence, guard band requirement in case of mixed usage

of technologies in the same band is needed to be taken into account while indicating the availability of spectrum blocks for auction. TRAI may consider adding the words: "within the scope of respective licences" after the word "services" and also the words "for IMT applications" between the words "spectrum" and "to be" in the Recommendation 3. Further, it is mentioned that Microwave spectrum in shared bands is allotted to various telecom service providers eg NLD, ILD, ISP and Captive Users subject to availability and spectrum charging mechanism varies from revenue share to formula basis. Clarification is. therefore, required on whether the process of assignment of spectrum in future through auction is limited to Access Spectrum only or it includes Microwave Backhaul spectrum as well. Following pertains to the Recommendations 4 to 10: 4. The Authority recommends that the refarming of spectrum in the 800 MHz and 900 MHz bands should be carried out progressively at an early date but not later TRAI may clarify the following: than the due date of renewal of the licences. The i) The basis for recommending auction of one slot of 5 spectrum available with the service providers in the 900 MHz even if additional slots are available for auction MHz band should be replaced by spectrum in the 1800 after making provision for re-farming and there is MHz band, which should be charged at the price demand for such spectrum. prevalent at the time of refarming. (Para 2.81)

5.	The Authority recommends that the Government must actively explore the possibility of refarming of the	ii) Greater clarity is required on the recommendations regarding timing of re-farming and quantum of spectrum to be set aside for meeting re-farming requirements at a later date for both 900 MHz and 800 MHz bands and whether there is scope for a more optimized approach that would not necessitate keeping a large quantum of spectrum reserved and unutilized even when there is demand. iii) TRAI may clarify as to what they meant by "progressively at an early date" and "price prevalent at the time of refarming". With regard to Recommendation 5, reference is invited to Recommendation 10, where TRAI has recommended
	spectrum in the 900 MHz band immediately, by invoking the authority to change the licence conditions. (Para 2.82)	that spectrum in 800 MHz should be progressively refarmed at the time of renewal of License. Further, Legal tenability of refarming 900 MHz spectrum before expiry of the license needs to be examined.
6.	Since the application for renewal of licenses must be	
	made at least 30 months in advance of the expiry of licenses, the Authority recommends that the 900MHz	the time of expiry of current License period. Hence, it is

	spectrum be auctioned at least 18 months in advance so as to enable the winning bidders to be ready with the deployment plans. Accordingly, the Authority recommends that the auction of 900MHz spectrum may be carried out in the first half of the year 2013. (Para 2.84)	advance. In addition, TRAI may provide the reasons for refarming 900 MHz band before expiry of the licenses whereas TRAI has recommended spectrum in 800 MHz band should progressively be refarmed at the time of renewal of licenses of such operators.
7.	The Authority recommends that in Circles where the amount of spectrum in 1800 MHz band is insufficient for carrying out fully the refarming exercise, immediate steps must be taken to get the Government agencies to vacate the 1800 MHz spectrum so that the entire 900 MHz spectrum can be refarmed. (Para 2.87)	
9.	The Authority recommends that the DOT should immediately arrange to allocate spectrum in the 1900 MHz band for refarming the spectrum in the 800 MHz band. (Para 2.103)	Spectrum up to 5 MHz (4 carriers) have been assigned to telecom operators in 800 MHz band (824-844/869-889 MHz). A total of 20 MHz has been earmarked in 800 MHz band for CDMA based services, whereas as per NFAP 2011, the frequency band 1900-1910/1980-1990 MHz (only 10 MHz) is available in 1900 MHz for CDMA based services. Some part of this band is also proposed as Defence Band and therefore only 7.5 MHz has been identified for telecom services. Even availability of 7.5 MHz is uncertain and technical studies for co-existence of 3G WCDMA in 2.1 GHz band and 3G EVDO in 1900 MHz band are to be further carried out.

The Authority recommends that the auction of spectrum 11. in 700 MHz band may be carried out at a later date, preferably in 2014 as and when the ecosystem for LTE in the 700 MHz is reasonably developed, so as to be able to realise the full market value of the spectrum. (Para 2.130) 12. The Authority recommends the following structure for the auction of spectrum in future: • The auction of spectrum shall be conducted using Simultaneous Multiple Round Auction (SMRA) format. • As regards the auction of spectrum in 1800 MHz and 800 MHz bands to be conducted immediately following these recommendations, it should be held in single stage. Every auction shall be open to all those holding CMTS licence/ UAS licence / Unified licence or eligible for grant of Unified Licence. Auction shall not be open to those that hold spectrum above the prescribed cap. • If a new entity is successful, then the Authority recommends that such an entity will have to take either the National level or the State level Unified Licence, as the case may be.

• In all auctions at least 5 MHz of spectrum shall be

Modalities of auction will be worked out at the time of auction.

Bullet 1:

TRAI may clarify what they mean by Simultaneous Multiple Round Auction (SMRA) format.

Bullet 2:

Read with Recommendations No. 17 and 26. TRAI may clarify the meaning of single stage auction.

Bullet No. 3:

- (i) "Prescribed cap" needs clarity whether it refers to spectrum holding before auction or after auction?
- (ii) Clarification is requested from TRAI that the prescribed cap refers to the last bullet.
- (iii) Eligibility for participating in the auction of spectrum will be in conformity with Part B (Para 28) of UL

offered, except where the spectrum available is less than 5 MHz.

- Spectrum shall be offered in blocks of 1.25 MHz each.
- For the auction that is to immediately follow these recommendations, the amount of spectrum to be offered will follow the scheme laid out in Para 3.39 above.
- The final bid price of one auction in a given band shall be the base price for the next auction whenever it takes place, with the rider that it will suitably be adjusted in the event of gap beyond one year.
- 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. (Para 3.39)

Guidelines.

(iv) The company(ies)/licensees whose licences are slated to be quashed on 7.9.2012 also needs to be considered eligible. It needs to be clarified whether they would be treated as new entrant or existing operators.

(v)Further, the eligibility of CMTS/ UAS licensee in respect of net-worth will be as per their existing licence conditions on the date of application. This is different than the net-worth requirement given in Part B (Para 28) of UL Guidelines.

vi) Eligibility criteria for bidders and quantum of spectrum that new/ existing operators would be entitled to; implications of applicability of auction price for any spectrum already held by existing incumbents and consequential impact of these aspects on level playing field

Bullet 5 & 6:

The auction price of fragmented chunks of spectrum is likely to be less than contiguous 5 MHz spectrum. It may also be noted that Reserve Price has been fixed at per MHz basis. TRAI may be requested to clarify whether for the purpose of auction; reserve price is to be shown for a

block of 5 MHz or a block of 1.25 MHz.

- (i) If a slot of 5 MHz is not available, then whether one block of 1.25 MHz or up to three blocks of 1.25 MHz shall be put for auction.
- (ii) Does the above scenario also apply for 800 MHz band for which auction to be conducted immediately after auction of 1800 MHz band?
- (iii) Para 3.24 of TRAI recommendations is reproduced below:
- "3.24 The Authority is conscious of the current situation where some of the existing licences have been quashed by the Hon'ble Supreme Court or those who had earlier applied for licences might wish to bid for the spectrum. The Authority therefore recommends that for this round of auction only, a provision be made to allow a successful bidder who is a new entrant to take upto 4 blocks of 1.25 MHz so that it has the minimum spectrum to commence operations. In the event the successful bidder is an existing spectrum holder of that band, it shall be restricted to only two blocks of 1.25 MHz each. Also, in such a case, if the second highest bidder is a new entrant, it shall be entitled to 4 blocks of 1.25 MHz each, but at

13.	The Authority recommends that after conducting the auction for spectrum in the 1800 MHz band, and	
		In its Recommendation on "Spectrum Management and Licensing framework" of May, 2010 and subsequent recommendations, the limit of 25% as also mentioned herein was prescribed. Limit of 50% of spectrum holding in a band in an LSA might lead to duopoly regime in the band. TRAI may clarify this aspect.
		(iv) Further clarification is required on the roll-out obligations also in relation to the operators who win only 1.25 MHz of spectrum, whether as a new entrant or as an existing operator. Bullet No. 9:
		Para 3.24 of TRAI recommendation has not been reflected in the summary of the Recommendations and it needs clarity as spectrum to be auctioned has been mentioned as 7.5 MHz. This situation needs to be clarified in case of auction of 800 MHz band also.
		the price offered by the highest bidder. Only in such an event, the total spectrum made available through this auction will be 7.5 MHz."

	reserving the spectrum required for refarming, out of the	whether such existing licensees should also participate in
	remaining spectrum if any, one block of 2x1.25 MHz of	auction process.
	spectrum may be allocated to those licensees having 4.4	
	MHz of spectrum in the service area, at the auction	Clarification is required that when spectrum block of 1.25
	discovered price for that service area. It should be clearly	MHz is allotted at the auction discovered price for the
	understood that while this tranche of 2x 1.25 MHz will	licensees having 4.4 MHz, then the total spectrum
	be paid for at the auction discovered price, it will be	available with the licensee would be 5.65 MHz.
	treated on par with the unliberalised spectrum of 4.4.	available with the heefisee would be 3.03 Will.
	MHz that is held by the licensee, unless the licensee opts	Eurthor for the liberalised spectrum, the licensee needs
	•	Further, for the liberalised spectrum, the licensee needs
	to liberalise the 4.4.MHz spectrum also by paying the	only 5 MHz (say for LTE) and for unliberalised use of
	auction discovered price. (Para 3.44)	spectrum (GSM), he needs only 5.60 MHz. In both the
		cases there would be excess spectrum with the licensee.
		Therefore, the rationale for allotment of 1.25 MHz in
		addition to 4.4 MHz spectrum licensee is not very clear.
		TRAI may clarify this issue.
14.	The Authority recommends that the Government may	Comments against Recommendation 13 may be referred.
	consult the Ministry of Law on the appropriateness of	We may consider seeking legal opinion after receipt of
	the course of action recommended in Paras 3.44 above,	clarification from TRAI. Legal opinion is required on
	keeping in view the licence conditions as well as the	recommendations 13, 14, 15, 26 (b), 28 and 29.
	order of the Hon"ble Supreme Court. (Para 3.45)	
15.	The Authority recommends that the Service providers	The following issues require clarification/ reconsideration
	may be allowed to convert their existing 1800 MHz	by TRAI:
	spectrum into liberalised spectrum on payment of the	
	auction determined amount in which case they will be	i) Whether the "price paid by them for the existing
	granted spectrum rights for a period of 20 years. They	spectrum" is the entry fee for grant of CMTS/UASL etc.,
	will be allowed to adjust the price paid by them for the	paid by each service provider.
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16.	existing spectrum on pro-rata basis for the balance period of the existing license. (3.49) The Authority recommends that in order to create a uniformly liberalised environment with a level playing field, the Government may consider incorporating a suitable incentive package for service providers in NTP	In addition, for allotment additional spectrum beyond 4.4 /6.2 MHz only spectrum usage charges have been levied, no upfront fee for spectrum has been levied. ii) Recommendation 4.2 of Unified Licence also refers, where adjustment of entry fee for migration to UL for the balance period was also recommended. This leads to adjustment of entry fee twice — once as entry fee for licence and again as upfront charge for spectrum.
	2012 to encourage all of them to migrate immediately to the new regime envisaged above. (3.50)	
17.	The Authority recommends that the auction of 800 and 1800 MHz spectrum should be held through two separate auction processes and in quick sequence. (3.55)	
18.	The Authority recommends that the Reserve price for the 1800 MHz spectrum shall be as given in Table no. 3.3. (Para 3.86)	TRAI has recommended reserve price for spectrum in 900 MHz and 2100 MHz bands where auction is scheduled for 2013-14 timeframe and 700 MHz as well as for 2300 MHz
19.	The Authority recommends that the Reserve price for the 800/900 MHz spectrum shall be as given in Table no.	in 2014-15 timeframe. TRAI may clarify whether the fixing of reserve price in the above said bands be done

	3.4. (Para 3.90)	close to date of auction by which time the auction determined price for 800 MHz and 1800 MHz band would
20.	The Authority recommends that the Reserve price for the 700 MHz spectrum shall be as given in Table no. 3.6. (Para 3.93)	be available. On reserve price of 800 MHz and 1800 MHz bands where auction is now scheduled, TRAI may clarify the basis on
21.	The Authority recommends that the Reserve price for the 2100 MHz spectrum shall be as given in Table no. 3.7. (Para 3.95)	which the efficiency factor and other indicators of the price has been derived, especially keeping in view the multiplication factor of 1.5 for 800/ 900 MHz bands prescribed by TRAI in its Recommendations of May, 2010
22.	The Authority recommends that the Reserve price for the 2300 MHz spectrum shall be as given in Table no. 3.8. (Para 3.97)	and February, 2011. It is also observed that reserve price of 1800 MHz band is lower than that of 2100 MHz as against the trend from
23.	The Authority recommends that the Reserve Price for spectrum in different bands shall be as given in Table no. 3.9 (Para 3.112)	2300 MHz to 700 MHz band, as seen from Table 3.9 at page nos. 115/ 116 of the Recommendation. This may also be clarified.
		In addition, TRAI may clarify the following:
		An elaboration of the basis for the recommendations regarding reserve price/ spectrum usage charge and whether the following aspects have been factored in while making the recommendations:
		a. Future potential of the band over a 20 year period in a

liberalized spectrum environment

- b. Likely usage pattern over the short/ medium term
- c. Value of spectrum taking into account both short & long term usage
- d. Comparison with international practices in methodology adopted for fixation of reserve price and relationship between reserve price and final auction discovered price
- e. Spectrum usage charge indicated/ applicable for 3G / BWA
- f. Past experience in the sector of a staggered payment arrangement for license fee/ one time spectrum charge
- g. Likely impact on tariffs
- h. Assumptions regarding target percentage range of revenue/ operating costs that spectrum charge, both one time and usage, should account for cumulatively
- i. Likely impact on telecom penetration and consequential impact on second order economic gains to the economy from spread of telecommunications
- j. Assumptions, if any, made on balance between direct revenues from telecom and revenue gains from second order impact on economy
- k. Appropriateness of recommending reserve price at this stage for auctions recommended to be held after 1-2 years and without awaiting outcomes of current

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					auction process
					I. Whether there is an alternative option of fixing reserve
					price.
					price.
24.	The Authority re	ecommends t	he following	s schedule for	Pre-1999 experience does not favour deferred payment.
	deferred payme		`	-	· · · · · · · · · · · · · · · · · · ·
	bidders. (Para 3.:		amount by	the succession	period does not appear practicable.
	bidders. (Fara 5	113)			period does not appear practicable.
	Constant	Initial	Manatanium	Period for	
	Spectrum	Payment	Moratorium	balance	
		rayment		payment	
	Supra-1 GHz	33% of the Bid	2 years	10 years	
	(1800,2100 and	amount		(equal annual	
	2300 MHz bands)			instalments)	
	Sub-1 GHz bands	25% of the Bid	2 years	10 years	
	(700,800 and 900	amount		(equal annual	
	MHz bands)			instalments)	
25.	The Authority	further recor	nmends tha	nt the annual	
	instalments for deferred payments shall be duly				
	securitised and the Net Present Value of the Bid amount				
	is safeguarded k	by imposing a	a suitable ra	te of interest,	
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	which shall be decided by the DOT in consultation with				
	the Reserve Bank of India/ Ministry of Finance. (Para				
	3.114)				

- 26. The Authority recommends that the sequence of spectrum auction could be as follows:

 | Feasibility of auction in bands other than 800 and 1800 |
 | MHz as per the time schedule requires consideration of
 - (a) 5 MHz of 1800 MHz band- This auction would be to establish the market value of spectrum. This could be done in the current year 2012-13 as early as possible.
 - (b) Allocation of additional 1.25 MHz spectrum to the holders of 4.4 MHz in 1800 MHz bands, subject to the legal opinion.
 - (c) Auction of spectrum in the 800 MHz band- This should also be done in the current financial year.
 - (d) Auction of spectrum in the 900 MHz band- This auction should be conducted in the first half of 2013-14 preferably in the first quarter so that there is adequate time for deployment as and when 900 MHz spectrum is available by November, 2014.
 - (e) Balance Spectrum in 1800 MHz band- This should be done in the first half of 2013-14
 - (f) Auction of Spectrum in 2100 MHz band This should also be carried out in the second half of 2013-14.
 - (g) Auction of available spectrum in 700 MHz band- This should be carried out in the first half of financial year 2014-15.
 - (h) Auction of additional spectrum in 2300 MHz band-This should be carried out in the second half of financial year 2014-15.

(3.117)

Feasibility of auction in bands other than 800 and 1800 MHz as per the time schedule requires consideration of various parameters such as availability of spectrum, refarming, modalities of auctions, policy prescriptions and the prevailing eco-system etc.

27.	The Authority recommends that the Department of Telecommunications should engage an auctioneer for a period of three years so as to conduct the auctions without delay. (3.118)	Since the price payable to the auctioneer depends on the quantum of spectrum likely to be auctioned, it may not be possible for engaging of the auctioneer for long periods. Auctioneer has to be engaged only after the spectrum blocks are identified on a case to case basis.
28.	The Authority recommends that mortgage of spectrum may be allowed by spectrum holders to a registered Indian financial institution against borrowings. The mortgage will be subject to the condition that in the event of default of the liability, the spectrum shall be auctioned by the financial institution under the supervision of the DOT and all proceeds in excess of the liability shall be remitted to the Government. (Para 3.125)	At present, a tripartite agreement executed between the Licensor, Licensee and the lender facilitates the borrowings by Licensee company. The prospects of mortgage of spectrum need to be examined legally as to the nature of property rights acquired by the licensee, its mortgability, etc. This needs to be examined by Ministry of Law and Ministry of Finance. TRAI may also like to give their views on the above.
30.	Therefore, the Authority reiterates its recommendation regarding rural roll-out obligations as spelt out in 3rd Nov, 2011 recommendations and that the measures contained therein should be made applicable to all spectrum holders. (Para 3.141)	This recommendation regarding rural roll out obligations was considered by Telecom Commission and it was decided that a comprehensive techo-economic study may be carried out to examine issues relating to increase in coverage and tele-density in rural areas while at the same time ensuring sustained quality of service and to examine the adequacy of USOF mechanism alone to achieve these objectives. The roll out obligation can be decided after the study is completed.

In addition, TRAI may clarify on the following:

Basis for recommendations on roll-out obligation, issues involved in combining this obligation with existing obligation for incumbent operators, implications of such an obligation in combination with auction methodology for all successful bidders, combination of incentives and disincentives envisaged for rural rollout and potential impact on auction outcomes and rural penetration.

31. The Authority recommends that

A. Licensees who have acquired spectrum only through auction conducted here onwards shall be levied spectrum usage charge only at the rate of 1% of the Adjusted Gross Revenue spectrum.

B. Licensees who have a mix of spectrum assigned administratively and spectrum acquired through auction and Licensees who have been assigned spectrum only through administrative process shall be levied the spectrum Usage charges at the rate applicable on the administratively assigned spectrum and on the entire AGR.

C. In the event the spectrum holder, who falls under "B" above, pays the current auction determined price for the spectrum that is administratively assigned, then it will be

TRAI may provide rationale for recommending 1% SUC whereas 3% was prescribed in case of 3G, which was also based on auction process.

Clarity on "Adjusted Gross Revenue Spectrum" is required.

In relation to Spectrum Usage Charge for mix of spectrum assigned administratively and spectrum acquired through auction, whether the spectrum acquired through auction will be added or will not added, with spectrum assigned administratively for determining the applicable slab rates. TRAI may clarify.

	entitled to the payment of Spectrum usage charges at	TRAI may also clarify how to determine the "current
	the rate of 1% of the AGR.	auction determined price" for cases falling under (C) at
	(Para 3.154)	the time of liberalisation of spectrum. In this regard, TRAI
		may be requested to indicate the period of validity of
		auctioned determined price.
32.	The Authority recommends that for the purpose of	In The UL recommendations, the TRAI has recommended
	calculation of the Licence fee as well as SUC, there shall	that licensee fee shall be subject to minimum of 10% of
	be a Minimum AGR, which shall not be less than 5% of	the entry fee paid. This recommendation is
	the Bid amount. The calculation will be on the basis of	contradictory so far as license fee is concerned and this
	Minimum AGR or the actual AGR, whichever is higher.	needs clarification.
	(Para 3.157)	
34.	Therefore, the Authority recommends that Spectrum	The word 'Trading' has specific connotation for which no
	trading should be allowed between spectrum holders	policy is available and issues as raised in
	having obtained spectrum through auction or having	recommendation 28 would also arise, therefore, keeping
	paid the auction determined price for the spectrum held	in view the purpose behind the recommendation, the
	by them, only for the limited purpose of frequency	'spectrum reconfiguration' may be permitted as per
	configuration (arranging spectrum in a contiguous band).	prescribed procedure, within the same band. Frequency
	(Para 3.186)	configuration should be done with approval of WPC
		Wing. TRAI may confirm.
		,
		TRAI may confirm whether such arrangement of
		reconfiguration is available for the operator in Scenario
		'B' in recommendation 31?
		TRAI may clarify whether under such reconfiguration any
		fees/ charges are payable to the government?
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