

Regulation Cell
5th Floor, Bharat Sanchar Bhawan,
Janpath, New Delhi - 110001
Tel.:011-2373 9295, Fax: 2373 408
Email : agmregln@gmail.com

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27/5/14



भारत संचार निगम लिमिटेड
(भारत सरकार का उपक्रम)

BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)

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To,
The Advisor (NSL-III), TRAI
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg, New Delhi-02

No. Regln/1-27/2014/ 778 Dated: 23rd May, 2014

Banzal 27/5/14
JAI

(Kind attention: Sh. Sanjeev Banzal, Advisor, NSL-III)

Sir,

Sub:- BSNLs comments on Consultation paper on "Allocation and pricing of
Microwave Access (MWA) and Microwave Backbone (MWB) RF carriers"

Kindly refer to said consultation paper dated 28-03-2014 regarding
"Allocation and pricing of Microwave Access (MWA) and Microwave Backbone
(MWB) RF carriers". In this context, the BSNLs comments are enclosed as
Annexure-A.

Encls: Annexure-A (3 pages)

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27/5/2014
Raghuvir Singh
AGM (Regl-II)

सलाहकार (एमएन)
डायरी सं. 2259
दिनांक 27/5/14

S. No.	Questions	Reply/Comments
1.	<p>How many total Microwave Access and Backbone (MWA/MWB) carriers should be assigned to a TSP deployed?</p> <p>a. 2G technology only. b. 3G technology only. c. BWA technology only. d. Both 2G and 3G technologies. e. 2G and BWA technologies. f. 2G, 3G and BWA technologies.</p> <p>Please give rationale & justification for your answer.</p>	<p>The carriers may please be assigned as per recommendations of TEC.</p>
2.	<p>How many MWA/MWB carriers need to be assigned to TSPs in case of 2G, 3G and BWA at the start of their services [i.e. at beginning of rolling of services] Please justify your answer.</p>	<p>For MWA: Min 3 Carriers of 28 MHz may be assigned at the start of service for each service.</p> <p>For MWB: Min 3 Carriers of 28 MHz may be assigned at the start of service for 2G and 3 G TSPs and 2 additional carriers for BWA. The 6 GHz band having carrier spacing of 40 MHz may also be assigned for MWB/BWA.</p>
3	<p>Should excess spectrum be withdrawn from existing TSPs?</p>	<p>The existing spectrum may not be withdrawn as this is to be decided on case to case basis in consultation with concerned TSP.</p>
4	<p>If yes, what should be the criteria for withdrawal of excess allocation of MWA and MWB carriers, if any, allocated to the existing service providers?</p>	<p>Not applicable in view of comments given against sl.no. 3.</p>
5	<p>What should be the preferred basis of assignment of MWA/MWB carriers to the TSPs i.e. 'exclusive basis assignment' or 'link-to-link based assignment'?</p>	<p>The assignment should be on exclusive basis.</p>
6	<p>In case 'exclusive basis' assignment is preferred, whether MWA and MWB carriers should be assigned administratively or through auction. Please comment with full justifications.</p>	<p>The MWA and MWB carriers may be assigned administratively, as these frequency carriers are to be used for mobile / BWA network, for which spectrum is allotted by Govt. separately. Further, <u>there is no additional revenue generation because of MWA / MWB carriers.</u></p>
7	<p>In case 'link-to-link basis' assignment is preferred, how the carrier assignment for different links should be carried out, particularly in nearby locations?</p>	<p>Not applicable in our case</p>

8	Considering the fact that different TSPs may require additional carriers at different point of time, what should be the assignment criteria for allocation of additional carriers for MWA and MWB?	The allocation may be restricted as per recommendation of TEC. In case any TSP needs additional carriers, same are to be allotted after analyzing technical justification of concerned TSP.
9	How can it be ensured that spectrum carriers assigned are used optimally and the TSPs are encouraged to move towards the OFC?	In order to encourage TSPs to move towards OFC it is suggested that:- a) Dedicated corridor for laying OF cable be provided in all cities and important highways. So that the safety of laid OF cable is ensured b) Ducts may be constructed by Road Authorities / DoT along all National Highways and other important roads. c) RoW charges should be realistic and proper co-ordination mechanism is to be setup for co-ordination with various agencies and among TSPs. d) Utilisation allocated spectrum may be audited by DoT periodically.
10	Should an upfront charge be levied on the assignment of MWA or MWB carriers, apart from the annual spectrum charges?	The spectrum allocated for MWA / MWB is only a supporting infrastructure for mobile / BWA networks and it forms a part of entire network. Therefore, it should be made available as cheap as possible to facilitate cost effective spread of services. Therefore, up-front charges are not desirable, as it would add to the overall cost input.
11	What should be the pricing mechanism for MWA and MWB carriers? Should the annual spectrum charges be levied as a percentage of AGR or on link-by-link basis or a combination of the two?	The existing pricing mechanism i.e. AGR based is appropriate.
12	In case of percentage AGR based pricing, is there any need to change the existing slabs prescribed by the DoT in 2006 and 2008? Please justify your answer.	The percentage to be applicable needs to as per DoT order dated 18 th April 2002
13	In case link-by-link based charging mechanism is adopted then: (a) Should the spectrum be priced differently for different MW spectrum bands (6GHz/7GHz/13GHz/15GHz/18GHz/21 GHz/26GHz/28GHz/32GHz/42 GHz etc)? If yes, by what formula	Link-by-link based charging mechanism may not be adopted for MWA / MWB / BWA.

	<p>should these be charged? (b) What are the factors (viz as mentioned in para 3.22), that should appear in the formula? Please elaborate each and every factor suggested.</p>	
14	<p>Should the option of assignment of MWA carriers in all the spectrum bands in 6-42 GHz range be explored in line with other countries? What are the likely issues in its assignment MWA carriers in these additional spectrum bands?</p>	<p>May be explored after exhausting existing bands.</p>
15	<p>In your opinion, what is the appropriate time for considering assignment of MWA carriers in higher frequency bands viz. E-band and V-band?</p>	<p>Spectrum in E-band and V-band may be considered for 4G services.</p>
16	<p>Should E-band be fully regulated or there should be light touch regulations?</p>	<p>It may be fully regulated.</p>
17	<p>What charging/pricing mechanism would be appropriate for these bands?</p>	<p>The charging should be on AGR based.</p>
18	<p>Apart from Q1-Q17, stakeholders are requested to bring out any other issue, which needs to be examined, with justification.</p>	<p>Presently, 28 MHz channel has only been specified for MWB by WPC. 28 MHz channel spacing is not available in upper 6 GHz band (6425 – 7110 MHz). As per ITU standards 29.65 MHz and 40 MHz channel spacing is only available in India for this band. BSNL is using 40 MHz channel spacing extensively. On the other hand sufficient spectrum is not available in 7 GHz band for MWB. Therefore, 6 GHz band with RF carrier spacing of 40 MHz and 29.65 MHz may be also included for MWB network.</p>