



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



No. C-15/2/(2)/2023-NSL-II

Date: 01.09.2023

To,

**The Secretary,**  
**Department of Telecommunications,**  
Sanchar Bhawan, 20 Ashoka Road, New Delhi - 110 001.

**Subject: DoT's letter dated 02.08.2023 seeking TRAI's Recommendations for the auction of spectrum in the frequency bands identified for International Mobile Telecommunications (IMT) - reg.**

Kindly refer to the DoT's letter No. L-14006/01/2023-IMT dated 02.08.2023, on the subject - 'seeking recommendations for the auction of spectrum in the frequency bands identified for International Mobile Telecommunications (IMT)'. A copy of the said letter is enclosed.

2. As mentioned in the above-referred letter, in response to the DoT's reference dated 13.09.2021, TRAI had provided its recommendations dated 11.04.2022 on various issues involved in the auction of spectrum in the 600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz and 26 GHz bands; based on the TRAI's recommendations dated 11.04.2022 and its subsequent response dated 09.05.2022 on DoT's backreference, the Government conducted auction of spectrum in the above frequency bands during July-August 2022.

3. Through the said letter dated 02.08.2023, DoT has mentioned the developments that took place after the completion of spectrum auctions held during July-August 2022. It has also been mentioned that DoT has decided to make available the new frequency bands viz. 37-37.5 GHz, 37.5-40 GHz, and 42.5-43.5 GHz for IMT, which can be made available for bidding in the next auction. DoT has also provided the LSA-wise quantum of spectrum available with the Government for auction of spectrum and details of the administratively assigned spectrum which will be expiring in the year 2024, which may also be included in the next auction.

Cont'd

4. With this background, under the terms of clause 11 (1)(a) of TRAI Act, 1997, (as amended), DoT has requested TRAI to -

a) provide recommendations on applicable reserve price, band plan, block size, quantum of spectrum to be auctioned and associated conditions for auction of spectrum in 600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz, 26 GHz, 37- 37.5 GHz, 37.5- 40 GHz and 42.5-43.5 GHz bands for IMT.

b) provide any other recommendations deemed fit for the purpose of spectrum auction in these frequency bands, including the regulatory/technical requirements as enunciated in the relevant provisions of the latest NFAP/Radio Regulations of the ITU.

5. It may be noted that, TRAI through the recommendations dated 11.04.2022 on 'Auction of spectrum in the frequency bands identified for IMT/5G', provided, *inter-alia*, recommendations in the matter of regular conduct of spectrum auctions on annual basis (or at shorter intervals). The recommendations made at Para 6.42 of the TRAI's recommendations dated 11.04.2022 are reproduced below:

*6.42 As there will be regular conduct of spectrum auctions on annual basis (or shorter intervals), the Authority recommends that*

*(I) For existing bands (including for the bands being put to auction for the first time in the forthcoming auction), a fresh spectrum valuation exercise be conducted once every three years; a suitable reference be made to the Authority by Government for this purpose.*

*(II) For auctions conducted in the interim period between periodic valuation exercises conducted once every three years,*

*(1) for LSAs where the spectrum put to auction in a previous auction is sold, the auction determined prices (duly indexed using applicable MCLR if more than one year has elapsed since the previous auction) should be used for arriving at the reserve prices for the next auction;*

*(2) for LSAs, where spectrum remains unsold in previous auctions, past recommended reserve price (without indexation) should be used.*

*(III) For new spectrum bands, to be put to auction for first time, a reference be sent to the Authority, as per established procedure as and when these bands are proposed to be put to auction.*

6. Subsequently, DoT, through its letter dated 29.04.2022, referred back some of the recommendations made through the TRAI's recommendations dated 11.04.2022 on 'Auction of spectrum in the frequency bands identified for IMT/5G'. With respect to the recommendation made at para 6.42 (as mentioned in the para above), through the back-reference dated 29.04.2022, DoT mentioned that:

*"DoT is of the view that given the fast-changing techno-commercial ecosystem, spectrum valuation at shorter intervals may be desirable. For instance, in LSAs/bands where spectrum remains unsold, there could be a case for reduction in reserve prices. Alternatively, there could be a spectrum band which may become more valuable due to a technological break-through.*

*Hence, it is proposed that recommendations of TRAI on spectrum pricing would be sought before conduct of every auction."*

7. TRAI in its response dated 09.05.2022 to the DoT's back-reference dated 29.04.2022, concluded that:

*"..the Authority does not agree with DoT's proposal to seek the Authority's recommendations before conduct of every (annual/ shorter interval) auction, as this would not be necessary unless DoT comes to a conclusion that the changes in the techno-commercial ecosystem and other factors warrants a fresh valuation. The Authority reiterates its recommendation given at paragraph 6.42 of the Recommendations dated 11.04.2022. As recommended at sub-paragraph (IV) thereof, in case DoT would like to seek the Authority's recommendations for existing spectrum bands in the interim period between periodic valuation exercises conducted once every three years, it may do so with a full and reasoned justification for the same. For new spectrum bands to be put to auction for the first time, the recommendation at sub-paragraph (III) of paragraph 6.42 would be applicable."*

8. In view of the above, and in the absence of full and reasoned justification by DoT for seeking fresh reserve prices from the Authority for the existing bands, recommendations at para 6.42 (II) of the TRAI's recommendations dated 11.04.2022 are applicable for all bands and for all LSAs referred through Annexure-II and Annexure III of the DoT's letter dated 02.08.2023 except for the new referred bands viz. 37-37.5 GHz, 37.5-40 GHz and 42.5-43.5 GHz. Therefore, for the existing bands viz. 600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz, and 26 GHz, auction may be conducted as per the recommendations at para 6.42 (II) of the TRAI's Recommendations dated 11.04.2022.

9. With regard to band plan, block size, and associated conditions for auction of spectrum in the existing bands viz. 600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz, and 26 GHz bands for IMT, it may be noted that the previous recommendations for auction of spectrum in these bands were made on 11.04.2022, based on which the auction was conducted during July-August 2022. The Authority is of the view that in such a short span of time since the previous recommendations, no technological developments or market changes have occurred that warrant any change in the band plan, block size, and associated conditions for auction of spectrum in the existing bands. The Authority also notes the changes made by the Government in the roll-out obligations in the Auctions of 2022. As regards the quantum of spectrum to be auctioned, the Authority maintains its position that all available spectrum should be put to auction.

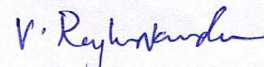
10. In light of the above, **the Authority reiterates its recommendation at para 6.42 (II) of the Recommendations on 'Auction of Spectrum in frequency bands identified for IMT/5G' dated 11.04.2022 on the reserve price. All available spectrum in the existing bands viz. 600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz, and 26 GHz in the referred LSAs may be put to auction with the same band plan, block size and associated conditions.**

11. As per the para 6.42 (III) of the TRAI's Recommendations dated 11.04.2022, the Authority will initiate a consultation process for providing recommendations for the new referred bands viz. 37- 37.5 GHz, 37.5- 40 GHz, and 42.5-43.5 GHz.

12. **The Government may put to auction the spectrum in the existing bands viz. 600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz, and 26 GHz without waiting for the Authority's recommendations for the new bands viz. 37-37.5 GHz, 37.5-40 GHz, and 42.5-43.5 GHz.**

This is issued with the approval of the Competent Authority.

**Enclosure:** As above

  
(V. Raghunandan)

**Secretary, TRAI**

Tel: 23237448

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Government of India  
Ministry of Communications  
Department of Telecommunications  
Wireless Planning & Coordination (WPC) Wing

6<sup>th</sup> floor, Sanchar Bhawan,  
20, Ashoka Road, New Delhi – 110001.

No.: L-14006/01/2023-IMT

Date: 02.08.2023

To,

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



**Subject:** Seeking TRAI recommendations for the auction of spectrum in the frequency bands identified for International Mobile Telecommunications (IMT).

Sir,

In response to DoT's reference dated 13.09.2021, TRAI had provided its recommendations dated 11.04.2022 on various issues involved in the auction of spectrum in the 600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz and 26 GHz bands. Based on the TRAI recommendations dated 11.04.2022 and its subsequent response dated 09.05.2022 on DoT's back-reference, Government conducted auction of spectrum in the above frequency bands during July-August, 2022.

(i) A total of 72097.85 MHz spectrum in different band-LSA combinations worth Rs. 4,31,605 crores (at Reserve Price) were made available for bidding. A quantum of 51236.2 MHz worth Rs. 150173.3 crores were sold in the auction. However, no bids were received in the 600 MHz and 2300 MHz bands during the auction. As per the TRAI recommendations, a comprehensive report (**Annexure – I**) analysing the outcomes of the above auction was also communicated on 14.12.2022 to the TRAI.

2. Further, the following developments took place after the completion of the spectrum auctions held during July-August 2022:

(i) Indian Railways surrendered 1.6 MHz of paired spectrum in the 900 MHz band in the Jammu & Kashmir LSA, which can be included in the next auction.

(ii) Based on the recommendations of TRAI on Spectrum Requirements of National Capital Region Transport Corporation (NCRTC) for Train Control System for RRTS Corridors dated 28.12.2022, 5 MHz of paired spectrum has been assigned to NCRTC on provisional basis in the 700 MHz band. The same will be regularised after the final decision is taken on the above TRAI Recommendations.

(iii) Recently, as per the decision taken by the Union Cabinet in its meeting held on 07.06.2023, the Department has reserved for BSNL's 5G purpose, 10 MHz (paired) spectrum in the 700 MHz band in all 22 LSAs in lieu of the 10 MHz (paired) spectrum previously reserved in the 600 MHz band, additional 30 MHz spectrum to the already reserved 40 MHz in the 3300 MHz band in all 22 LSAs, additional 400 MHz to the already reserved 400 MHz in the 26 GHz band in all but Kerala LSA. In Kerala LSA, 250 MHz in addition to already reserved 400 MHz in 26 GHz band is being kept reserved for 5G services of BSNL.

(iv) Further, the Cabinet in its above meeting, has also decided to allot additional 20 MHz of spectrum in the Andhra Pradesh, Karnataka, Kolkata, Tamil Nadu, Delhi and Mumbai LSAs and 10 MHz of spectrum in Gujarat and Maharashtra LSAs to BSNL in the 2500 MHz band for the roll out of 4G services, in addition to already reserved spectrum in various bands for them for 4G services through the Cabinet decision of 2019.

These additional spectrum provisions for BSNL need to be kept out of the next auction.

2.1 In addition to above, Department of Telecommunications (DoT) has decided to make available the following new frequency bands as detailed below for IMT, which can be made available for bidding in the next auction.

SI No	Applications/Services	Frequency bands
1.	IMT	37-37.5 GHz
2.	IMT (to share with Satellite Gateway Earth Stations with suitable protection)	37.5 – 40 GHz, 42.5-43.5 GHz

2.2 The LSA-wise quantum available with the Government in the existing bands after the auction, taking into consideration the facts mentioned in the paras 2 (i) to (iv) and 2.1 above is given in **Annexure-II**

2.3 Moreover, part of the administratively assigned spectrum to various TSPs, including that of BSNL, will be expiring during the year 2024; the same may also be included in the next auction. The LSA-wise details of such spectrum (2024 expiring) is placed at **Annexure-III**.

2.4 Further, as part of the reforms in the telecom sector, the Government has decided to hold spectrum auctions in the last quarter of every financial year.

3. Considering the above, the competent authority has decided that the spectrum mentioned at Para 2.2 and 2.3 above (**Annexure-II** and **Annexure-III** respectively) may be made available for bidding in the next auction for IMT. Any other spectrum, which might be available due to any re-farming etc. in these bands before the start of the auction, will also be made part of the auction process.

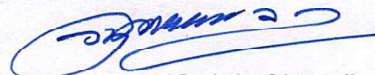
4. In view of the above, under the terms of clause 11 (1)(a) of TRAI Act, 1997, as amended by TRAI Amendment Act 2000, TRAI is requested to:

(a) provide recommendations on applicable reserve price, band plan, block size, quantum of spectrum to be auctioned and associated conditions for auction of

spectrum in 600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz, 26 GHz, 37 – 37.5 GHz, 37.5 – 40 GHz and 42.5 – 43.5 GHz bands for IMT.

- (b) provide any other recommendations deemed fit for the purpose of spectrum auction in these frequency bands, including the regulatory/ technical requirements as enunciated in the relevant provisions of the latest NFAP/Radio Regulations of the ITU.

This issues with the approval of the competent authority.

  
(Gulab Chand)  
Joint Wireless Adviser

*Enclosures:*

- i) **Annexure-I:** A comprehensive report analysing the outcomes of the auction held during July/August 2022.
- ii) **Annexure-II:** LSA-wise quantum available with the Government in the 600 MHz, 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300 MHz, 26 GHz after July-August, 2022 auction and new 40 GHz bands (37-43.5 GHz range); taking into account the spectrum surrendered by Indian Railway, taking out the spectrum reserved/ proposed to be assigned to BSNL/MTNL and Railways/ NCRTC.
- iii) **Annexure-III:** LSA-wise quantum of the administratively assigned spectrum which is due for expiry during 2024.