VIL/PB/RCA/2022/ January/003

January 24th, 2022

Advisor (Networks, Spectrum and Licensing)
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg (Old Minto Road),
New Delhi – 110 002

Kind Attn: Shri Syed Tausif Abbas

Subject: **Vodafone Idea's Counter-Comments to TRAI Consultation Paper on Auction of Spectrum in frequency bands identified for IMT / 5G**

Reference: **TRAI Consultation Paper dated 30th November 2021**
VIL comments submitted vide letter no. VIL/PB/RCA/2022/001 dated 10.01.2022
VIL letter no. VIL/PB/RCA/2022/002 dated 10.01.2022

Dear Sir,

This is in reference to the TRAI's consultation paper on Auction of Spectrum in frequency bands identified for IMT / 5G issued on 30th November 2021.

In continuation to our above-mentioned letters, kindly find enclosed our counter-comments to the comments submitted by various stakeholders to the captioned consultation on 'Auction of Spectrum in frequency bands identified for IMT / 5G issued on 30th November 2021'.

We request your kind consideration and support on our above-mentioned counter-comments.

Thanking you,

For Vodafone Idea Limited

P. Balaji
Chief Regulatory & Corporate Affairs Officer
Enclosed: Above stated Counter-Comments
Copy to: **The Secretary, TRAI**

VIL Counter comments to the TRAI Consultation Paper on "Auction of Spectrum in frequency bands identified for IMT / 5G"

At the outset, we are thankful to TRAI for giving us opportunity to provide our comments and counter-comments to the TRAI Consultation Paper on "Auction of Spectrum in frequency bands identified for IMT/5G".

Vodafone Idea Limited (VIL) has submitted its comments to the question raised in above-said consultation paper. Further, we have also gone through the submissions of various stakeholders on the above-said consultation paper and would like to submit our counter-comments, given as follows:

1. Valuation and Reserve Price:

a. We have observed that there is an industry wide consensus on fresh look at the pricing of spectrum in 3300-3670 MHz range and for its reduction to single digit % of the reserve price recommended by TRAI earlier in 2018.

b. Also, comments from bigger players seeking reduction of valuation of spectrum and bringing down reserve price to 5% of earlier recommend price, reaffirms our position seeking substantial reduction in pricing and the outcomes of the valuation model submitted by us.

c. As per comments to Q. No. 49 submitted by us, the valuation of spectrum was opined to be 10% of the earlier valuation along with reserve price to be set at 50% of valuation instead of 80% as recommended by TRAI earlier. The effective reserve price with this would be 6% of the reserve price recommended by TRAI earlier in 2018. Also, we request TRAI to use the valuation model for details, as enclosed with our original submission.

d. From above, it is evident that there is an industry wide consensus on substantial reduction of reserve price (single digit % of earlier recommended reserve price) for spectrum in 3300-3670 MHz, and is duly supported by a detailed valuation model as well as global pricings.

e. Further, there is also a general consensus for reserve price of new spectrum band i.e. mmWave band (24.25 GHz to 28.5 GHz), to be 1% of the new reserve price of spectrum in 3300-3670 MHz band.

f. Furthermore, there is also a consensus on the reserve price to be at 50% of the valuation of spectrum band and

Therefore, we request TRAI to back the industry needs and recommend (a) reserve price of 3300-3670 MHz spectrum to be 5% of the earlier recommended reserve price (b) reserve price of 24.25 GHz -28.5 GHz spectrum to be 1% of new reserve price of 3300-3670 spectrum, and follow reserve price ratio as 50% of valuation.

2. **Spectrum Caps**

   a. As has been seen globally, the most widely used spectrum band for 5G services is the C-band i.e. 3300-3670 MHz frequency range in Indian context. Considering the capacity requirements as well as dense areas from Indian context, a minimum of 80-100 MHz is required by an Indian TSP to provide meaningful 5G experience.

   b. Therefore, the spectrum caps should be kept in a way that each TSP is able to get access to a reasonable 80-100 MHz quantity of spectrum, without any risk of duopoly/hoarding of spectrum.

   c. We reiterate that spectrum caps should be kept at 100 MHz, from the overall quantity of 370 MHz spectrum in 3300-3670 MHz.

   d. Further, some stakeholder(s) have sought higher spectrum caps at 50%. In our view, there is adequate supply of spectrum across the bands which can suffice requirements of existing TSPs therefore, the spectrum caps in any of the spectrum bands / frequency range should not be increased to 50% otherwise it would distort competition and lead to duopolization / hoarding of spectrum.

3. **Spectrum quantity to be put up for auction and minimum quantity**

   a. We reiterate our views submitted in the comments to the consultation paper. In our view, all clean and interference free spectrum should be put to auction, without inducing any situation of artificial scarcity.

   b. The 370 MHz in 3300-3670 MHz as well as 4.25 GHz in 24.25 GHz to 28.5 GHz should be put to auction, in the coming auction itself.

   c. Further, it would be imperative to have the complete and interference free C-band i.e. 3.3 to 4.2 GHz and mmWave bands i.e. 24.25 GHz to 29.5 GHz to be put to auction in future for IMT purposes. In our view, Government should conduct interference studies to support and provide interference free clean spectrum and should also define exclusion zones with minimum distance, in case some spectrum is used for other purposes in few locations.

   d. **No auction for 526 - 617 MHz:** As there is no band plan available for 526 - 617 MHz, it should not be put to auction in the upcoming auctions. The spectrum

should only be auctioned once there is a 3GPP roadmap for the band.

e. It is observed from the comments submitted by industry that a minimum of 80-100 MHz in 3300-3670 MHz spectrum range would be required for meaningful 5G services. Also, as it has been seen in the past, forecast of usage of new technologies in terms of spectrum quantity required, is beaten by experience in spectrum quantities in existing technologies. Therefore, TSPs should be given more and not less spectrum, and minimum quantity should be such which is closer to 80-100 MHz. Allowing anything lesser would be a non-optimal use of the 5G spectrum.

4. E&V band

a. Again, there is a consensus amongst industry players on E&V bands as a way out to address the backhaul challenges which will get multiplied with the 5G services. Industry players have agreed for E&V bands to be sold as part of the coming auction.

b. We reaffirm our views that E&V bands should be put to auction as bundled with the access spectrum in 3300-3670 MHz.

c. Further, it is reiterated that E&V bands should only be used as backhaul spectrum and only by operators giving 5G services.

5. Payment terms

a. The financial stress prevailing in the industry has again got reaffirmed through comments from industry and other associations, with a general consensus on demands of no-upfront payment, 5-6 year moratorium as well as reduced interests.

b. In line with views of various stakeholders and industry players, we request TRAI to recommend that there should be no upfront payment, followed by 6 year moratorium (2year + 4year allowed by Government at present as well), and followed by annual installments and interest at RBI repo rate.

6. Spectrum from 27.5 GHz to 28.5 GHz

a. The most enriched experience of 5G services with very ultra-high data speeds and low latencies can be made available through larger chunks of spectrum in mmWave bands.

b. Operators would require large chunks of spectrum in the range of 1-1.2 GHz to ensure optimum experience and to be able to serve all segments of the enterprise cases as well as use-cases like stadia events, congregations etc.

c. The momentum in device ecosystem and growth in data, is driving the need for additional frequencies in the 28 GHz spectrum band.

d. Therefore, we request that TRAI should recommend that the existing available frequencies from 24.25 GHz to 28.5 GHz should be put to auction in coming auction and it should be aimed to bring rest 28.5 to 29.5 GHz also for auction for IMT purposes.

7. Private Networks

A. <u>Telecom operator(s) best placed to cater & support Innovation and Future demands of Enterprises while meeting other national and security objectives</u>

i. From the comments of few stakeholders we observe that there is a requirement being raised for private networks to cater to innovation and future demands of enterprises.

ii. It is seen from the comments of various stakeholders, that operators would require considerable amount of spectrum for 5G services hence, in our view, no spectrum should be reserved for private networks. The TSPs have been meeting these demands for over 20 years and there is no doubt that they will continue to meet the requirements with the advent of newer technologies.

iii. We submit that TSPs are more than capable for meeting all the customization requirements of enterprises with increased focus on M2M and Industrial 4.0 services. Indian telecom market is very competitive and TSPs will continue to meet the enterprise requirements at aggressive and competitive tariffs, under the current policy framework.

iv. As the Authority is already aware that the TSPs have years of experience in deploying spectrum efficiently and offering multiple services integrating a multitude of technologies. The TSPs are able to offer a wide range of managed solutions to industrial customers including 5G capabilities like 5G virtual networking for point-to-point connections, 5G private networks that cover a certain area, 5G+cloud, where vertical industry applications are deployed on the public cloud and connected through the 5G network and 5G edge computing for ultra-low latency processing.

v. In fact, when a private network is part of a commercial network, it takes care of various regulatory requirements. When a captive private network is part of a

commercial network it addresses the following issues for orderly growth of the sector:

a. Neither the legitimate revenue of licensed service provider is truncated nor there is any revenue loss in terms of upfront payment for acquiring spectrum or under a separate methodology for license fee and Spectrum Usage Charge (SUC).

b. This also adheres to the principle of "Same Service Same Rule". Any move such as setting aside/ allocation of 5G spectrum (via delicensed/ administrative basis) for catering to the connectivity needs of Industry 4.0 / M2M communication services by way of Private Captive Networks, creates a non-level playing field, thereby not only truncating the revenues of the licensed service providers but also affecting the revenue of the Government.

c. A Captive Network within the commercial network fulfil the national security related requirements of "Law Enforcement Agencies", as necessary lawful interception and monitoring is provided by the service provider while no such facility is available to LEAs in private captive networks.

d. It is pertinent to note that spectrum is a key finite resource with high economic value. The spectrum allocation in any spectrum band that can be used to deploy and provide communication services, irrespective of the entity desiring to use the spectrum or the technology deployed or type of services offered, should be allocated only through a transparent and open auction process. Therefore, we do not support delicensing/ reserving any Spectrum bands for Private Captive Networks or any other services like M2M services.

B. <u>Global examples do not indicate encouraging output compared to Opportunity loss</u>

i. We further reiterate that some European countries have reserved spectrum (like Germany) however, there has not been encouraging output or utilizations. Further, it lead to inadequate spectrum with less than 300 MHz of spectrum to be allocated to four MNOs.

ii. Countries like UK have considered such examples and analyzed opportunity cost of reserving such spectrum for isolated private networks v/s national mobile operators serving millions of consumers. It has been arrived upon that opportunity cost is far higher than the value such private network creates in the society.

iii. We would also like to refer to the assessment of economic impact done by Compass Lexecon on the specific example of Germany keeping aside commercial spectrum for local private networks. The assessment mentions that the costs of set-aside to German society are significant, while any benefits are likely to be

marginal.

C. <u>Private Network requirements can be met through Spectrum Leasing</u>

For the purposes of meeting innovation and future demands of enterprises through private networks, spectrum leasing through TSP is the best approach to meet such demands and use cases. It allows enterprises to choose between Private Networks via spectrum leasing or to take comprehensive services from TSPs while enabling TSPs to deploy the entire available spectrum for 5G outside the limited boundaries of such enterprises. Any other approach of reserving some spectrum, would be a non-optimal use of the 5G spectrum which has huge economic potential and presents big growth opportunity for the nation.

D. <u>Final Submission</u>

Therefore, we strongly urge the Authority not to recommend delicensing or reservation of spectrum for Private captive networks and instead, recommend framework for spectrum leasing for any such use cases.

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