



TVR/VIL/014  
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Advisor – Network, Spectrum and Licensing  
The Telecom Regulatory Authority of India  
Mahanagar Door Sanchar Bhawan  
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Dear Sir,

**TRAI Consultation paper on Reserve Price for the Auction of Spectrum in the 800 MHz Band  
- Counter Comments by Vodafone**

Please find enclosed our counter to the response of different stakeholders to the TRAI Consultation Paper on Reserve Price for the Auction of Spectrum in the 800 MHz Band.

We hope that our submissions will merit your kind consideration and support.

Kind regards,

Sincerely yours,

**T. V. Ramachandran**  
**Resident Director**  
**Regulatory Affairs and Government Relations**

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: Shri R. K. Arnold, Member, TRAI  
: Shri Sudhir Gupta, Secretary, TRAI  
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## Reserve Price for Auction of Spectrum in the 800MHz band – Counter Comments by Vodafone

Vodafone is a strong advocate that the 800MHz band should be reconfigured for E-GSM. This will require some reshuffling of the existing users of the band—at a low cost and with no disruption to their customers—and the co-operation of the PSUs and the Defence Ministry. We agree with the TRAI that a significant quantum of spectrum can be released in many circles, with a minimum of 5MHz available in 20 circles. If necessary, we would support payments to the current holders of spectrum to compensate for any reasonable costs incurred in clearing spectrum.

In our response to the consultation we made an important distinction between the reserve price of 800MHz and the market-determined price discovered through an auction process. We argued that the reserve of 800MHz should be set with reference to the value of 900MHz spectrum because the spectrum in these bands are 'similar assets', producing substitutable services. The auction itself will allow the market to price any variances in the value of the two bands as a result of differences in the maturity of the eco-systems, availability of devices and other factors cited by respondents to the consultation. Our recommendation that TRAI sets the reserve price of 800MHz at a discount to its estimate of value should give confidence that the auction will yield price discovery.

We also emphasised that the Exchequer should not suffer materially by selling spectrum cheaply in the 800MHz band now, when the same spectrum may be sold at a higher price when the band is reconfigured for E-GSM.

We have the following comments on others' submissions:

- By arguing that the reserve price of 800MHz should set at a 35% discount to the reserve price of 1800MHz (and therefore at a 60% discount to the 900MHz band) one operator inadvertently makes a strong case that the 800MHz band should be reconfigured for E-GSM. If the value of the services provided by 900MHz is that much greater than that provided by 800MHz—note this 'value' is an excellent measure of the benefits that customers derive from the spectrum—then one of the Government's objectives (to achieve an efficient allocation of spectrum) is best delivered by reconfiguring the band. Similarly, if LTE at 850MHz has "almost unacceptable Techno-Economic feasibility" and the spectrum cannot be used for future data services, then it can be put to better use as E-GSM. For clarity, we do not believe this to be the case.
- One respondent argues that the "quantum of spectrum available in 800 MHz band is just 2x20 MHz as compared to availability of higher spectrum in 1800/2100/2300/2500 MHz bands and therefore the potential data revenue is much lesser in 800 MHz band. As more spectrum is made available in these and other bands like 700MHz the share of data revenues from 800MHz band will get further reduced." However, even if the total output of data service produced by the 800MHz band is lower than other bands, the *per MHz* amount of services delivered is unlikely to vary significantly and neither will the value of those services; this is not a valid argument for a low reserve price for 800MHz. Furthermore, if the availability of other bands reduces the value of the 800MHz then these bands must be substitutes for one another, and therefore it is valid to use the value of one to set the reserve price of the other. In fact, the additional availability of other bands will reduce the value of 1800MHz and 900MHz spectrum (because, all else being equal, the supply of a substitute spectrum has increased) and so this effect is *already* embodied in the value estimates of both spectrum types via the econometrics, opportunity cost and international sense check methods.



- One respondent has objected to the fact that the spectrum being auctioned is not contiguous with its existing holdings, and therefore it cannot be used to provide LTE services and consequently it should attract a low reserve price. However, we note that this was not a consideration in the forthcoming auction; the government is selling both contiguous and non-contiguous spectrum in the 1800MHz band in many circles, for which operators will pay the same price. In some circles where the supply of contiguous spectrum is very limited, the competition for this block could drive up the price of non-contiguous spectrum beyond the reserve price.

The important question is how spectrum in all bands can be made contiguous. In the 800MHz we suggest that this is done at the same time that the band is reconfigured for the E-GSM band.

- The submission of one respondent that the spectrum auctioned in 800 MHz is non-contiguous and at present can only be used for CDMA services is belied by the fact that all the CDMA operators are offering 3G EVDO services, which can be offered in 1.25MHz.

We believe that our proposal, on the one hand, recognises that the services provided the 800, 900 and 1800MHz bands form part of the same market and therefore a similar methodology can be used to estimate their value, but, on the other, it is also designed to permit an auction to determine the absolute and relative prices of the bands.

**Vodafone**

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