

Telewings 'Uninor' Submissions on TRAI Consultation Paper on Valuation and Reserve Price of Spectrum: 2100 MHz Band (14 of 2014)

Executive Summary

Over past few months, the need for additional contiguous spectrum in Indian telecom market has been discussed at various industry and governmental forums. The Authority has been at the forefront of expressing the opinion that government should make all out effort to ensure that sufficient spectrum across all bands should be made available for auctions. As we are discussing the valuation of 2100 spectrum in this paper, there is no clarity yet that how much spectrum is available for the upcoming auctions. The valuations of spectrum are closely linked to availability of spectrum for auctions.

One of the key reasoning for spectrum assignments through auctions is that the bidding process leads to an efficient outcome, i.e. prices leaving no spectrum unsold (market clearing prices). Too high reserve prices will prevent market clearing prices from being discovered, and lead to unsold spectrum.

The present in-band / all-band spectrum caps of 50% and 25% respectively should be uniformly applied in all policies namely Guidelines for M&A, spectrum sharing, spectrum trading and Auctions. However, in the particular case of 2100 band where only one or two blocks of 5x2Mhz may be available for auction and none of the operators hold pan-India spectrum. There is a need for band specific restrictions to be imposed till such time adequate spectrum is made available in this band. The details are explained in the following paragraphs and also in our response to Q 2, 3 and 4.

Rollout Obligation

In the present scenario where spectrum is auctioned at market determined price, there is no further requirement of rollout obligation as the successful bidder will roll out its network as per his business plans. In the unlikely event that the Government wishes to continue with the SDCA based rollout obligation, then the test procedure and associated details (rural SDCA etc.) should be made available prior to the issue of NIA, so that prospective bidders can take an informed decision.

The number of SDCAs is generally 10 times the number of DHQs, hence a self-certificate should suffice. Sample testing of 10% of the sites should be done by TERM cells and there should not be any test fee related to SDCA testing. Its important to note that testing fee related to minimum rollout has gone up many folds due to inclusion of SDCAs in test plans.

Valuation

In the February 2014 spectrum auction it is fair to say that market clearing prices were discovered in 12 Licensed Service Areas (LSAs) for the 1800 MHz band, and 3 LSAs for the 900 MHz band. It is reasonable to assume that these prices reflect (marginal) spectrum value. In the remaining LSAs spectrum in the 1800 MHz band remained unsold at the reserve price. In these LSAs auction prices do not reflect spectrum value.

Predicting spectrum value is difficult. In the LSAs where market clearing prices were discovered in the 1800 MHz band, the auction price relative to the valuation estimate of TRAI (2013) was in the range of 37% (J&K) to 319% (AS). For the remaining LSAs (with no market clearing prices discovered) spectrum value is unknown, but the estimates made in 2013 were far too high. In Rajasthan, for instance, the reserve price was set at 34% of the estimated value. Still 44% of the spectrum remained unsold.

The conclusion must be that previous attempts to estimate spectrum value holds little merit, and has proven an inefficient method of setting appropriate reserve prices for auction. Government should therefore rather base forward-looking reserve prices on observed market clearing price points from previous auctions where available. When such price points are not available, reserve prices should be substantially reduced compared to previous auction, and could further be guided and “sanity checked” by international benchmarks adjusted properly for differences in population, ARPU, GDP/capita, licence duration etc.

Compared to 1800-MHz frequencies, the propagation characteristic of spectrum in the 2100 MHz band is somewhat inferior. The 83% technical disadvantage seems reasonable. Furthermore, although the 2100 and 1800 MHz bands can be deployed for 4G, the 4G ecosystem for the 2100 MHz band is less developed. The combined effects of poorer propagation characteristics and ecosystem indicate a value relative to 1800 MHz of 70%. Adjusted for these effects, market clearing auction prices observed in the 1800 MHz band in February 2014 is a reasonable benchmark for spectrum value in the 2100 MHz band. For LSAs where all spectrum was sold the value of the 2100 MHz band should therefore be set to 70% of 1800-MHz auction prices. For the remaining LSAs, 50% should be used.

Reserve prices

Setting reserve prices involves one-sided risk. The auction in February 2014 showed that as long as reserve prices are set sufficiently low, competition will drive prices up to the market clearing level. Similar observations were made in the 2100-MHz auction in 2010, where auction prices exceeded reserve prices in all LSAs. Too high reserve prices, however, will not trigger a downward pressure on prices, but rather leave spectrum unsold. Therefore the main objective should be to avoid reserve prices that are too high. International benchmarks indicate that reserve prices on average are set about 40% below final prices.

We recommend therefore that reserve prices are set 20-40% below estimated value.

Spectrum cap in the 2100 MHz band

We welcome any increase in spectrum supply in India. Although additional 2100 MHz spectrum will improve supply, overall spectrum availability will continue to be low compared to other countries. The ability to offer advanced data services in addition to regular voice and SMS require a minimum spectrum portfolio. Without this minimum of spectrum resources competitiveness will be constrained. The combination of limited spectrum supply and minimum spectrum requirements to maintain competitiveness may incentivise stronger operators to buy spectrum beyond own needs in order to weaken competitors with small spectrum portfolios and overall competitiveness. If for instance 10 MHz is sold, it is sufficient that two incumbents buy 5 MHz each to foreclose non-2100 MHz holders from obtaining spectrum. Therefore, with 5 MHz for sale the Government should maintain the 2100-MHz spectrum cap of 5 MHz (including any spectrum bought in 2010) for the upcoming auction. If more than 5 MHz is sold in a LSA, the cap can exceed 5 MHz (including any spectrum bought in 2010), but one of the 5 MHz blocks sold should be reserved for non-2100 MHz holders.

Issue wise response to TRAI's Questions

Q1. In the auction for 2100 MHz spectrum held in 2010, certain roll-out obligations were mandated for the successful bidders. Stakeholders are requested to suggest if any changes are required or whether the same roll-out obligations should be mandated in the forthcoming auction, along with justification.

Uninor response:

When spectrum is acquired at market price, each successful bidder will try to recover costs as per their business plans by expeditious rollout of network. There is no requirement of any rollout obligation mandated by government.

In case Government decides to continue the roll-out obligations for 2100 MHz should remain the same in 2010 / 2015 and future auctions, relaxations if any should be uniformly applied for level playing field.

We propose that the roll-out obligation timelines under the forthcoming auction of 2100 MHz spectrum should start only after completion of the following activities:

- a) Allotment (Right to use) of 2100 MHz spectrum won in auction. The allotted spectrum should be usable, interference free and free from any other encumbrance.
- b) Allotment (Right to use) of Access/ Backbone Microwave frequency spots.
- c) Authentic list of service area wise SDCAs and Rural SDCAs to be made available.
- d) Final Test Schedule for testing of 3G roll-out obligations on the basis of on-going consultations/ discussions between DoT (TEC/TERM) and the Industry representative bodies (COAI/ AUSPI).

It is also suggested that, as there are lot of gaps between DoT and the Industry on compliance of 3G roll-out obligations, the Test Schedule for 3G roll-out obligations should be finalized prior to the auction and it should be made part of the NIA. This will ensure that the investments in networks are properly evaluated by prospective bidders to take an informed decision prior to the bidding process.

In case rural SDCA level rollout is being insisted, only 10% of sites should be tested on sample basis. There should not be any test fee related to SDCA testing. Its important to note that testing fee related to minimum rollout has gone up many folds due to inclusion of SDCAs in test plans. In addition, there should be a time bound process of approval. In case the testing has not started within a defined period of 30 days it should be deemed approved for those sites.

Q2. Whether a bidder should be allowed to bid for more than one block of spectrum, in case a sufficient quantum of spectrum (more than one block in LSA) is put to auction?

Uninor response:

Spectrum supply in India is constrained and will continue to be constrained even if 2100 MHz spectrum is made available. Limited spectrum supply may incentivise bidders to bid for spectrum beyond own needs in order to prevent operators with inferior spectrum portfolios from offering advanced data services. The result would be weaker competition which will be against consumer welfare We therefore recommend that if more than 5 MHz

is sold in a LSA, the cap can exceed 5 MHz (including any spectrum bought in 2010), but one of the 5 MHz blocks sold should be reserved for non-2100 MHz holders.

Q3. Whether the spectrum caps (of 50% of total spectrum in a band/25% of total spectrum assigned across bands) prescribed in recently held auctions in the 800/900/1800 MHz bands should also be prescribed for the upcoming auctions in the 2100 MHz band?

Uninor response:

In addition to our response to Question 2, the present in-band / all-band spectrum caps of 50% and 25% respectively should be uniformly applied in for upcoming auctions across all bands. However, in the particular case of 2100 band where only one or two blocks of 5x2Mhz may be available for auction and none of the operators hold pan-India spectrum, there is a need for band specific restrictions to be imposed till such time adequate spectrum is made available in this band

If only 5 MHz is sold we recommend that the Government maintains the 2100-MHz spectrum cap of 5 MHz (including any spectrum bought in 2010) for the upcoming auction. If more than 5 MHz is sold in a LSA, the cap can exceed 5 MHz (including any spectrum bought in 2010), but one of the 5 MHz blocks sold should be reserved for non-2100 MHz holders.

Q4. In case only one block of 5 MHz of spectrum in 2100 MHz is available in an LSA, should only those TSPs be allowed to participate who do not have 2100 MHz spectrum in that LSA at present?

Uninor response:

Yes, we recommend in this case that the Government maintains the 2100-MHz spectrum cap of 5 MHz (including any spectrum bought in 2010) for the upcoming auction (see also Q2). This will be best way to enhance competition and therefore consumer welfare.

Q5. Should the indexed value of May 2010 auction determined prices of 2100 MHz spectrum be used as one possible valuation for 2100 MHz spectrum in the forthcoming auction? If not, why not? And, if yes, what rate should be adopted for the indexation?

Uninor response:

It is about 4.5 years since the 2100-MHz auction in 2010. In the meantime spectrum prices have in general declined. In many LSAs market clearing prices are still yet to be observed. In the last auction (February 2014) spectrum in the 1800 MHz band remained unsold in 10 LSAs. The May 2010 auction should therefore not be used as a benchmark for value for the 2100-MHz spectrum in the forthcoming auction.

Q6. Should the value of the 2100 MHz spectrum be derived on the basis of the value of the 1800 MHz spectrum using the technical efficiency factor (0.83) as discussed in Chapter III?

Uninor response:

Compared to 1800-MHz frequencies, the propagation characteristic of spectrum in the 2100 MHz band is somewhat inferior. The 83% technical disadvantage seems reasonable. Furthermore, although the 2100 and 1800 MHz bands can be deployed for 4G, the 4G ecosystem for the 2100 MHz band is less developed. The combined effects of poorer propagation characteristics and ecosystem indicate a value relative to 1800 MHz of 70%. Adjusted for these effects, market clearing auction prices observed in the 1800 MHz band in February 2014 is a reasonable benchmark for spectrum value in the 2100 MHz band. For LSAs where all spectrum was sold the value of the 2100 MHz band should therefore be set to 70% of 1800-MHz auction prices. For the remaining LSAs, 50% should be used.

Q7. Should the value of spectrum in the 2100 MHz band be estimated on the basis of the producer surplus model outlined in Chapter III? Please provide your views on the assumptions made. Please support your response with justification, calculations and relevant data along with the results.

Uninor response:

There is little merit in bottom-up valuation as a method of setting appropriate reserve prices for auction, as proven by previous attempts. Government should therefore rather base forward-looking reserve prices on observed market clearing price points from previous auctions where available. When such price points are not available, reserve prices should be substantially reduced compared to previous auctions, and could potentially be further guided and “sanity checked” by international benchmarks (appropriately adjusted for population, ARPU, GDP/capita, licence duration as needed).

Q8. Should the value of spectrum in the 2100 MHz band be estimated on the basis of the growth in data usage outlined in Chapter III? Please provide your views on the assumptions made. Please support your response with justification, calculations and relevant data along with the results.

Uninor response: See Q7

The data growth in 3G has happened over the past one year, we would need the data for a longer period for any purposeful modelling. This approach assumes that a 10-15% of voice shall be carried on 2100 band, but fails to realise the fall in voice revenues due to proliferation of OTT players. The rise in 3G data over the past one year has not been monetised yet and the 3G networks are still being rolled out. Hence, a forward looking prices based on market clearing price points is a better option than relying on data growth alone over short period.

Q9. Would it be appropriate to value the 2100 MHz spectrum as the simple mean of the values arrived from different valuation approaches as discussed in Chapter III? If no, please suggest with justification which single approach should be adopted to value the 2100 MHz spectrum?

Uninor response: See Q7

Q10. What should be the ratio adopted between the reserve price for the auction and the valuation of the spectrum of 2100 MHz band?

Uninor response:

Setting reserve prices involves one-sided risk. The auction in February 2014 showed that as long as reserve prices are set sufficiently low, competition will drive prices up to the market clearing level. Similar observations were made in the 2100-MHz auction in 2010, where auction prices exceeded reserve prices in all LSAs. Too high reserve prices, however, will not trigger a downward pressure on prices, but rather leave spectrum unsold. Therefore the main objective should be to avoid reserve prices that are too high. International benchmarks indicate that reserve prices on average are set about 40% below final prices.

We recommend therefore that reserve prices are set 20-40% below estimated value (see Q6).