

COMMENTS ON CONSULTATION PAPER ON SPECTRUM AUCTION

COMMENTS ON Q1 AND Q2

The key observations of the Hon'ble Supreme Court are:

1. State must act in consonance with the principles of **equality** and **public trust** and ensure that no action is taken which may be detrimental to **public interest**.
2. State's actions must be for the **public good, achieving the objects for which they are set** and should not be **arbitrary** or **capricious**.
3. Contract designs should be such as to **ensure competition** and not **discrimination**. They can **augment their resources** but the object should be to **serve the public cause** and to do **public good** by adopting **fair and reasonable methods**.
4. For the sale of natural resources, the state's determination of the actual mechanism for distribution should be guided by the doctrine of **equality** emanating from concepts of **justice** and **fairness**. Mechanism includes the **method used** and its **design**. The doctrine of **equality** implies **equitable access, adequate compensation** for transfer of state resources to private domain, **just, non-arbitrary** and **transparent** method that does **not discriminate between similarly placed private parties**.

In short, the principles Hon'ble Supreme Court would like to be incorporated are:

- **Equality** and **public trust** implying **equitable access** to the resource and **transparency** – while these could be achieved through several routes, the Hon'ble Supreme Court has clearly specified the auction route which when designed suitably takes care of these requirements.
- **Public Interest** and **public good, achieving objects for which they are set** – public interest and public good in the context of telecom sector has not been defined by the court. It can mean maximization of revenues against transfer of resources from public to private parties or maximizing the direct benefit to public by ensuring low tariffs for services produced using the sold resources or achieving an optimum balance between these two. Hon'ble Supreme Court has specified that **the state can augment**

their resources but the object should be to serve the public cause.

The hint therefore is towards a suitably designed auction that strikes a balance between maximization of immediate or short-term revenue gains and ensuring that tariffs are not unduly burdened by very high auction prices. What is the best balance is a decision that the regulator and the government will have to take using their best judgement. This is an important issue, as it will impact the design of the auction. The ideal course would be a design that maximizes competition but does not hurt the industry by very high bid prices due to artificially created scarcity of spectrum. An auction designed to elicit bids from 5 to 7 bidders drawn from existing and proposed new service providers and ensuring similar access to resource, should be considered to be meeting the criterion specified by the Hon'ble Supreme Court.

- In certain situations, the regulator could favour entry of new operators but in the present case with more than six operators in each service area, there is no need for such an attempt from the regulator or the policy maker. At the same time, if new operators based on their own judgement of the market, decide to enter the fray, they should not face any discrimination or discouragement. Thus, auction for every slot should be equally open to all. By suitably designing the granularity of spectrum and by permitting an operator to bid and win multiple slots so that a new operator can get enough spectrum to start service will bring it at par with existing spectrum owning operators.

COMMENTS ON Q3 TO Q13

The first question to be addressed is whether the Hon'ble Supreme Court order implies the use of only 2G technologies only. At no place there is a reference to technology. Reference is only to 2G spectrum that would clearly cover all bands viz. 1800 MHz, 900 MHz and 800 MHz bands. The regulator would therefore be entirely within its rights to consider all issues associated with all these bands. Besides, the order also wants the regulator to keep government decisions of

2011 (and 2012) in mind while giving its recommendations. The 2011 press release clearly states that there has to be a shift in policy to broadband implying that issues including bands for the broadband technologies such as IMT must also be considered. Since ITU has earmarked 700 MHz band besides the above bands (viz. 900 MHz and 1800 MHz), consideration has to be given to the auction of 700 MHz band also. Thus, the views expressed by some stakeholders to restrict recommendations to 2G technologies only, is not valid.

In fact, the order should not be treated as a problem but as an opportunity, which will not come again, for the regulator to steer the currently confused and floundering telecom sector in line with the world trend and straighten quite a few issues. As indicated in the table at Annex 3 of the TRAI consultation paper, worldwide technology neutrality of spectrum has been implemented and a few nations that have not done so are either in the process of doing it or are considering it. Following the present path of specifying technologies for given bands will forever tie India up to an inefficient and quickly becoming obsolete technology.

It is for this reason that all issues have to be considered in an integrated manner and therefore several questions are being answered below in an integrated manner.

The first issue to be considered is the issue of refarming of 900 MHz band the need for which has been accepted by the government in their 2011 press release.

The consultation paper has suggested three possible approaches. The first option which would normally be the best, creates a problem that after reserving spectrum in 1800 MHz band for facilitating moving of all 2G operators out of 900 MHz band to leave it for more advanced technologies. The problem is that not enough spectrum is left to accommodate all or some licensees of 2008 whose licenses have been cancelled through this order. This option can not therefore be accepted. Keeping the above discussion in view, either of the two remaining options could be accepted though the third option will probably be fairer. The remaining spectrum can then be auctioned to meet the requirements of new operators who wish to come with 2G technology despite its limitations as well as

for the expansion needs of existing operators. To accommodate both the requirements, the block size granularity can be kept as 1 MHz in this band with the proviso that a successful bidder can bid and keep multiple blocks say up to 6.

If either option 2 or 3 is accepted for refarming of 900 MHz band, it will have 1 or 2 new slots of 5 MHz each – a minimum block size for either W-CDMA or LTE/advanced LTE technology induction. Thus, the two bands 700 MHz and 900 MHz (with more or less similar propagation characteristics) when auctioned together will offer 10 to 11 new (9 in 700 MHz and 1-2 in 900 MHz) 5 MHz blocks for auction. However, since these technologies work more efficiently at higher bandwidths and to ensure better, more competitive spectrum prices, operators may be permitted to bid for and keep up to 2 or preferably 3 blocks of 5 MHz each. If for some reason contiguous 5 MHz is not feasible, spectrum sharing to achieve this may be permitted.

One issue that arises if either option 2 or 3 is accepted, is that existing 2 G operators get to retain the premium 900 MHz spectrum without having to bid for it. This problem is easily nullified if auction of both 700 MHz and 900 MHz is carried out together. This will require certain conditions to be imposed on the existing operators in 900 MHz band. The existing 900 MHz operators will be allowed to participate in the auction with the proviso that they can bid for either 1 or 2 (compared to other operators who could bid for 2 or 3 blocks) and subject to overall spectrum ceiling decided by regulator/government and with the further requirement that these existing operators of 900 MHz band will pay the price for the spectrum retained by them (in 900 MHz band) as determined through this auction process.

It may be argued that another drawback of choosing option 2 or 3 will be that the existing operators may continue to use the 2G technology rather than bring in newer technologies but then that is the key feature of technology neutrality which lets the market decide the technology.

Frequency reconfiguration will certainly be required to ensure availability of 5 MHz contiguous bands and the only issue associated with it is that some amount

of time will be required for retuning as the equipment in place is capable of working in the entire 900 and 1800 MHz bands.

As already discussed above, the refarming and auction of 700 MHz bands should be linked together to meet the fundamental requirement of Hon'ble Supreme Court to maintain equality and equitable access to similarly placed private parties.

Permitting an operator to bid and retain more than one block will help meet the requirement of adequately competitive bidding to fetch reasonably good revenue to the government besides being a requirement for greater efficiency of the newer broadband technologies. It will also permit the government to auction the entire 2x45 MHz spectrum in 700 MHz band instead of putting an arbitrary and therefore non-transparent limit on the amount of spectrum (and therefore number of operators).

The 800 MHz band presents a different problem. It is not possible to create a 2x2.5 MHz block and therefore a full blown 3G or 4G service is not feasible. Besides, if an auction is carried out separately for this band, it is likely that the interest in the market will be so poor that proper price discovery may not be possible. The option of shifting these operators to 1900 MHz band is also not easy since the working of CDMA-2000 in 1900 MHz band with W-CDMA/3G in 1800 MHz band is not well established yet. The nearest one can hope to reach to a realistic price is to use the per MHz discovered price in 1800 MHz band auction discussed later.

COMMENTS ON Q14 TO Q16

The auction should be on the same lines as the tested and tried 3G auction.

Auction should be in two separate groups. One for the 700 MHz and 900 MHz bands together and the other for the 1800 MHz band. In the first set (700 MHz and 900 MHz bands) blocks of 5 MHz each should be auctioned with a provision to retain multiple blocks up to 3 and subject to overall spectrum holding limits arrived at by the regulator and the government. In the second set (1800 MHz band) blocks of 1 MHz each should be auctioned with the proviso that multiple

blocks up to 5 can be retained by a bidder subject to overall limits on spectrum holding.

The actual design of the auction and its details should be decided by international auction experts to be hired for carrying out auction.

COMMENTS ON Q17 TO Q21

These have been essentially covered in the replies given above. There need only be an overall spectrum holding limit and there is no need to have sub-GHz limit as the auction is offering equal opportunity to all for all parts of the spectrum.

COMMENTS ON Q22

The above proposals are such that equal and adequate opportunity is being given to all types of bidders and therefore the auction should be open to all. It has been mentioned in the press releases of the Department of Telecom that emphasis has to shift to broadband. The licensees whose licenses have been cancelled were all 2G licensees and in the proposals given above, equal opportunity has been made available to them to introduce whichever technology they wish after winning a bid. Therefore, no specific preference for one or the other bidder need be incorporated.

COMMENTS ON Q23 TO 25

Two observations of the Hon'ble Supreme Court's order guide us for the determination of the Reserve Price for the auction. It has been observed that state's actions have to be in public interest and while they may augment their resources adequate compensation should be obtained. In the context of public interest, the regulator will have to exercise its wisdom and determine to what extent maximization of revenue for the state is in the interest of the consumer (very high spectrum costs can impact tariffs and business case being an important input cost).

It cannot be disputed that the spectrum price depends on utility. In a technology neutrality scenario proposed here, the utility of a given block of spectrum can best be determined by the market and not artificially based on certain

assumptions or theoretical studies. This principle is equally applicable to determination of the reserve price in an auction procedure that will ultimately bring out the market-discovered price. In this regard, rather than depending on any theoretical study by experts or any other body, the best starting point would be an actual market based price discovery. The 3G and BWA Auctions are the only recent auctions of comparable nature. Due to spectrum scarcity at that time, some skewing of the market may have taken place in the 3G Auction while BWA auction was without voice communication facility. Therefore, the reserve price could be set as a median value between the discovered price for 3G and BWA auctions suitably indexed to the current date.

Dr. D.P.S. Seth