



**Counter Comments on Consultation on
Auction of Spectrum**

Counter Comments on Consultation Paper on Auction of Spectrum

Without prejudice to our rights to have Spectrum up to 6.2 MHz as part of Contractual Commitment between Govt and Reliance Communications Ltd (RCOM)

Executive Summary

- (i) RCOM's comments and suggestions on issues raised in the consultation paper are led by the principles of equality and promoting competition. The aim is to create an absolute level playing field in allocation of high quality spectrum like 900 MHz by seizing the opportunity of the proposed 2G auction. This will reduce the cost of operations for all operators across the industry. Thus refarming 900 MHz spectrum and distributing it equally in band size of 2.2 MHz to all TSPs is of paramount importance at this stage to meet the coverage requirement and operational efficiencies.
- (ii) The incumbent operators do not have the vested right to hold and use the 900 MHz spectrum for ever ,as it was granted for use during Administered Allocation policy. The incumbent operators should get the access to the 2G spectrum beyond the License validity period only based on the auction discovered price as per the directives of Supreme Court and also as per the Government affirmed policies. Global practices suggest the refarming of such spectrum allocation for better and level playing field based intended society use in the last 1 to 2 years of the License validity period. Hence immediate re-farming of 900 MHz is an absolutely valid justification for meeting the Supreme Court highlighted principles of equality and promoting competition.
- (iii) The incumbents have received upto 2x10 MHz GSM spectrum even without any guidelines and policy framework while the operators like RCOM are finding it difficult to get even the assured and contracted spectrum upto the 2x6.2 MHz spectrum. Incumbent operators claims of justifying their participation even though they are holding spectrum beyond the Prescribed Limits are completely illogical and defies any quantitative technical network/business modelling based justification for meeting the QoS and operational efficiencies. The operators holding 2G spectrum of 8/10 MHz or beyond should not be allowed to participate in auction.
- (iv) The two leading incumbent GSM operators are misrepresenting and misleading by making statements that currently India has a Liberalisation regime. Only the license is technology neutral and not the spectrum. The spectrum allocations so far till to date have been made based on the GSM/CDMA/3G/BWA services in the specified bands of 900/1800/800, 2100, 2300 MHz respectively. Such spectrum holding by the operators today do not allow them to use the spectrum in a Liberalised mode of operation. Liberalisation globally has been done in global markets after a period of maturity and having ensured level playing field

amongst all operators. Any Liberalisation initiatives have been attempted in global markets only after refarming.

- (v) APT spectrum plan of 700 MHz is unique and global harmonization, and standards finalisation of this spectrum band is still not complete. The 3G services adoption in India is still in the nascent stage. In absence of availability of proper eco system and standards, the cost of deployment will be prohibitive and its adoption would take a long time. The operators who are holding BWA spectrum for launch of 4G service are yet to commercially rollout the 4G services. Society is yet to see the adoption of 4G service inspite of huge quantum of spectrum i.e 20 MHz by the BWA operators, leading to the hoarding of most valuable spectrum. Thus any thought of holding 700 MHz spectrum auction during 2012-13 for a globally designated digital dividend spectrum would only lead to acquisition of spectrum cheaply now and hoarding by such proponent operators and also cause heavy loss to the National Exchequer rather than meeting the societal requirements of improving broadband tele-density.
- (vi) The parameters like effective market access for 2G is considerably low in today's reality with intense competition, lowest ARPU levels, increased OPEX, higher finance cost, increased marketing cost and limited access to capital, have a significant bearing on the ability to support spectrum acquisition cost and yet have a sustainable business model. Any reserve price setting should reflect the above parameters and we strongly believe that the market cannot sustain a reserve price at the 3G reserve price levels. Global telecom economist driven models do not justify such reserve price levels.
- (vii) The CDMA reserve price should be at a fractional level of 2G 1800 MHz spectrum price as the above indicated market parameter are much worse by an order of magnitude for CDMA service proliferation going forward in the market. Thus there is an imperative need to correct the hitherto suggested norm of pricing 800 MHz at 1.5 times 1800 MHz spectrum band.
- (viii) 2G market realities indicate huge challenges with reference to sustenance due to intense competition, much lower market access, lower ARPU levels, increased OPEX, much lower growth rates and much lower EBITDA levels. To be able to cope up with all these financial challenges, we strongly recommend the phase payout of auction discovered price. This in turn would create a level playing field as this auction is forced upon by the Supreme Court judgment considerably impacting the later entrants compared to the incumbents.
- (ix) In addition to the counter comments RCOM would like to reiterate that the existing UAS Licensees eligible to receive additional spectrum i.e amount over and above initial 4.4 MHz spectrum and upto contracted limit of 6.2 MHz 2G spectrum within the contracted limit should be considered to have the deemed first right to receive the spectrum even before allocation of spectrum through auction. The total quantity of 2G spectrum to be put for auctioning should be decided only after meeting the requirement of eligible UAS/CMTS licensee.

- (x) The response of the incumbent operators has been on predictive lines as always. The responses from incumbents can be best described as anti competition, anti-consumer and pro-monopolistic. We feel that the good work done by the Authority should continue and it should not accept any of the fallacious arguments being put forth by the incumbents.
- (xi) The Authority has all along supported open competition and kept consumer interest at the forefront of its policy. RCOM is confident that TRAI will continue to push a pro-consumer and pro-competition approach suggested above going forward.

.The Detailed Counter Comments

RCOM's counter comments on submissions from incumbent operators, mainly cover the following issues:

- (i) Re-farming of 900 MHz Spectrum band**
- (ii) Liberalisation of 800/900/1800 MHz spectrum Bands**
- (iii) Auction of 700 MHz Spectrum band**
- (iv) Eligibility for 2G Auction and Spectrum Caps**
- (v) Pricing of 1800 MHz and 800 MHz spectrum**
- (vi) Spectrum Usage Charges**
- (vii) Payment of Spectrum auction Fee in instalments**

Re-farming of 900 MHz Spectrum Band

- (i) The incumbent mobile operators have suggested that refarming of 900 MHz spectrum band is not needed. They have claimed that they have legal right over 900 MHz spectrum and service will be disrupted in case they are migrated to 1800 MHz spectrum band.

RCOM Counter Comments

- (i) Incumbent operators claim that they have a legal right over the 900 MHz spectrum allocated to them for the initial license validity as well as post-license validity period is absolutely absurd. For the post-license period, the government has the absolute right to allocate such spectrum on a renegotiated terms and conditions based on auction discovered pricing. In this regard Para 4.1 in the license agreement deals with the extension of the license and is reproduced below for reference:

“4.1 The LICENSOR may extend, if deemed expedient, the period of LICENCE by 10 years at one time, upon request of the LICENSEE, if made during 19th year of the Licence period on terms mutually agreed. The decision of the LICENSOR shall be final in regard to the grant of extension”

- (ii) **The incumbent operators have obtained 900 MHz spectrum against 4th cellular License although the tender was for 1800 MHz spectrum. These incumbent operators have even managed to get 2x8 MHz spectrum in 900 MHz band when the license conditions very clearly provided that not more than 2x6.2 MHz should be allocated. Such spectrum in excess of 6.2 MHz irrespective of 900 MHz/1800 MHz holding should be mandated to be withdrawn from the incumbent operators by TRAI and put to the 2G Auction.** This allocation of excess spectrum in 900 MHz bands and incorrect allocation of spectrum in 900 MHz against 1800 MHz to incumbents has resulted in completely disadvantageous position for the new GSM networks who have received only 4.4 MHz initial allocation of spectrum and that too in 1800 MHz band, which has inferior coverage characteristics. Compared to 900 MHz.

- (iii) With a combinational usage of 900 and 1800 MHz at 2.2 and 4 MHz respectively would ensure the coverage and capacity requirements of incumbent operators without any degradation of QoS to the end subscribers. This combinational usage would also adequately meet the portrayed rural coverage requirements of the incumbent operators. Yet, incumbent network operators are hoarding spectrum in 900MHz spectrum far beyond the minimum required holding. This created a huge non-level playing field for 1800 MHz network operators. **This imbalance needs to be corrected immediately by refarming 900 MHz immediately before the proposed 2G auctions.**

- (iv) The 900 MHz spectrum band would have to be refarmed done immediately as sufficient spectrum is available in 1800 MHz to relocate the existing 900 MHz operators. Refarming at a later date would be impossible as 1800 MHz spectrum band will not be available for relocation of 900 MHz users. The immediate refarming of 900 MHz spectrum band and redistribution to the other operators is also in line with the principle of equality laid down by the SC for allocation of spectrum.

- (v) It is well known that 900 MHz spectrum delivers significant advantages in terms of rural and in-building coverage. **Re-farming of 900 MHz spectrum and distribution equally in blocks of 2.2 MHz will significantly increase overall profitability of the sector, create a level playing field as well as drive growth and innovation as new entrant networks launch products they are unable to due to the significant cost and coverage disadvantages they face.** Additionally, the re-farming will increase the investor's confidence within the telecom sector by projecting the Regulator as an impartial upholder of fair market principles and healthy competition. All operators offering GSM services

should have equal access to 900 MHz spectrum so that no operator has advantage over other in terms of coverage requirement. **Therefore 900 MHz spectrum allocated to the incumbents should be re-farmed and distributed equally to TSPs in block size of 2.2 MHz.**

- (vi) The incumbent operators have themselves admitted that the rural penetration is at an abysmal level of under 40% and require 900 MHz spectrum band to increase rural coverage. It is strange that they intend to use 900 MHz for rural coverage only when the time for renewal of their licenses is approaching. The rural coverage is no justification to hold all of 900 MHz as 2.2 MHz is sufficient to meet the coverage requirement. Therefore there is no justification to allow incumbent operators to hold 900 MHz spectrum band.
- (vii) **Therefore 900 MHz spectrum should be withdrawn immediately before Auction and redistributed in block size of 2.2 MHz to all operators.**

Liberalisation of 2G Spectrum

- (i) Incumbent operators have submitted that 2G spectrum is already liberalised and they are free to deploy any technology.

RCOM Counter Comments

- (ii) The two leading incumbent GSM operators are misrepresenting and misleading by making statements that currently India has a Liberalisation regime. Only the license is technology neutral. The spectrum allocations so far till to date have been made based on the GSM/CDMA/3G/BWA services in the specified bands of 900/1800/800, 2100, 2300 MHz respectively. Such spectrum holding by the operators today do not allow them to use the spectrum in a Liberalised mode of operation. Liberalisation globally has been done in global markets after a period of maturity and having ensured level playing field amongst all operators. Any Liberalisation initiatives have been attempted in global markets only after refarming.
- (iii) The 3G Service providers have paid Rs 16,750.58 cr for 2x5 MHz pan India spectrum in 2.1 GHz spectrum band for 3G services. **Liberalisation of 900/1800MHz spectrum will lead to increase in the total 3G spectrum supply from current level to a much higher level without any payment being involved.** Thus operators who have enough spectrum in these bands will hugely benefit without having to pay Rs 16,750 cr for 2x5 MHz spectrum

for upgrading to 3G services. **Thus liberalised use would mean massive loss to the Government exchequer.**

- (iv) The Liberalised use of 2G spectrum before the Auction, for 3G/4G service will change the dynamics of the market. The 700 MHz spectrum band has a minimum value of 3 times the 2.3 GHz spectrum band. However, with liberalisation of 2G spectrum, there would be excessive supply of spectrum for 4G services which would result in crash of 700 MHz spectrum prices and massive loss to the Government exchequer.
- (v) The liberalised use of 800 MHz and 900/1800 MHz at this stage will distort competition in the Indian mobile markets. Incumbent operators have large spectrum holding and would be able to dedicate some part of the spectrum for existing 2G operations and the rest they would use for advanced 3G/4G services. Thus liberalisation will only help the incumbent operators and not all TSPs.
- (vi) Hon'ble Supreme Court of India in its judgment has directed that TRAI shall make fresh recommendations for grant of licence and allocation of spectrum in 2G band in 22 Service Areas by auction. Liberalization of 800/1800 MHz for possible use of advanced UMTS/LTE technologies will distort the 2G Auction process, disturb the level playing field ,affects the Govt policy of acquiring right value for Spectrum for such use in relevant bands and for applicable quantum considered essential for such liberalised usage. In addition **Liberalisation is beyond the scope of the directive of SC Directive and Govt's intended objectives.**
- (vii) The liberalised use of spectrum can be allowed only after level playing field is achieved through equitable distribution of spectrum and through payment of higher license/spectrum charges applicable for 3G/4G service.
- (viii) **Without meeting the level playing field objective of the 2G spectrum liberalisation may be unlawful and also cause huge loss to the National Exchequer.**

Auction of 700 MHz spectrum band

- (i) The 2 incumbent operators have supported auction of 700 MHz spectrum at this stage.

RCOM Counter Comments

- (ii) APT spectrum plan of 700 MHz is unique and global harmonization, and standards finalisation is still not complete. The 3G services adoption in India still in nascent stage. In absence of availability of proper eco system and standards, the cost of deployment will be prohibitive and its adoption would take a long time. The operators who are holding BWA spectrum for launch of 4G service are yet to commercially rollout the 4G services. Society is yet to see the adoption of 4G service inspite of huge quantum of spectrum i.e 20 MHz by the BWA operators, leading to the hoarding of most valuable spectrum. Thus any thought of holding 700 MHz spectrum auction during 2012-13 for a globally designated digital dividend spectrum would only lead to acquisition of spectrum cheaply now and hoarding by such proponent operators and also causes heavy loss to the National Exchequer rather than meeting the societal requirements of improving broadband tele-density.
- (iii) It is not the right time to allocate/auction 700 MHz spectrum as it has not been harmonised. The allocation of uplink and downlink are completely different and not harmonised in USA, Japan and Europe. Indian proposed uplink and downlink channel plans are also different compared to USA, Japan and Europe. China is still contemplating to use 700 MHz in TDD mode leave alone FDD mode. The 700 MHz band is still under consideration and not part of 3GPP standards. Non-global harmonisation in spectrum band and varied channel plans leads to unavailability of devices at global scale of economy. In absence of availability of proper eco system and standards, the cost of deployment will be prohibitive and its adoption would take a long time.
- (iv) There is very poor device eco system in the global market with only 2 tablets and about 8 smart phones and 10 dongles . Even if dongles are to be adopted as choice of LTE device that has to be support 5 spectrum bands to support fallback from 4G to 3G and 2G. Such dongles are too expensive in the price range to \$ 175 to \$200.
- (v) **The LTE eco system is thus not ready. It is also evident from the fact that still there is no large scale deployment of LTE network by any of the BWA bid winners. On the other hand almost all 3G bid winners have launched 3G services and there is large scale deployment of 3G networks. This is because there is significant difference in the available eco system. It clearly establishes that the large scale network rollout is possible when proper eco system is available.**
- (vi) **The 700 MHz spectrum band is precious and has approximately 3 times the 2.3 GHz band. However at this stage with little development of eco system, the Government revenues will not be commensurate.**
- (vii) **Further, allocation 4G services cannot be launched at affordable level by any operator without stable and sustainable 2G operation. 4G operators**

require to exploit the existing NW / Operational ,Customer Support and Marketing infrastructure thus minimizing the investments for incremental 4G network related CAPEX and OPEX.

- (viii) As mentioned above **the 4G Industry all over the world is in nascent stage with only soft launches done with very limited coverage and very limited Devices availability.** In developed country markets where there is a supposedly available 4G market , inspite of high cost of device, high CAPEX per subscriber level and abundant availability of 4G spectrum them, TSPs are not finding a viable business case. In India the situation is entirely different where the 2G services have not yet reached the level of sustainability, 3G service adoption is pretty low at high cost with minimal 3G spectrum holding on per operator basis.
- (ix) **Nowhere in the World 4G has reached a level of affordability with a scalable and sustainable business plan.** India can ill afford the adoption of 4G in 2013 time frame, as we do not even align with the Globally harmonised Spectrum Plan in the 698 -706 band. **Hence the timing is not right for 700 Auction and not to be mixed with 2G Auction.**
- (x) The 700 MHz spectrum availability is very limited in India. To have an effective 4G service with enough competition, the spectrum in 700 MHz would have to be combined with spectrum in other bands 2500 MHz. Hence the 700 MHz spectrum auction should only be taken up once the spectrum in 2500 MHz spectrum band is also available.
- (xi) **Thus any action contemplated for 700 MHz should be deferred till global market matures with available devices and infrastructure in 2015.**

Eligibility for 2G Auction and Spectrum Caps

- (i) Incumbent operators have suggested that even operators holding excess spectrum should be allowed to take part in the spectrum.

RCOM Counter Comments

- (ii) The incumbents have received up to 2x10 MHz GSM spectrum even without any guidelines and policy framework while the operators like RCOM are finding it difficult to get even the assured and contracted spectrum upto the 2x6.2 MHz spectrum. Incumbent operators claims of justifying their participation even though they are holding spectrum beyond the Prescribed Limits are completely illogical and defies any quantitative technical network/business modelling based justification for meeting the QoS and

operational efficiencies. The operators holding 2G spectrum of 8/10 MHz or beyond should not be allowed to participate in auction.

- (iii) The incumbent operators are using 900/1800 MHz of 2G with a tandem co-location offering of 3G around 2100 MHz. Such combined usage of spectrum around the 3 bands in all the dense urban and the sub-urban areas is enabling them to have at least 1.5 to 1.8 times the required spectrum on any given cell site to meet their subscriber service usage pattern of voice, GPRS/Edge and the related value added services. The radio traffic channel utilisation in RAN using 8/10 MHz spectrum resource coupled with a partial allocation of 3G spectrum is enabling them to meet the effective per user voice traffic/data traffic and Vas requirement. The incumbent operators are not justified at their current level of market share to claim that the QoS requirements would be effected. Technical, engineering based network coverage and capacity business models do not justify such false claims of incumbent operators of questioning the concept of Prescribed Limits.
- (iv) The incumbent operators have large spectrum holding upto 10 MHz which on one hand has become a constraint on the availability of adequate spectrum for auction and on the other it is distorting level playing field and impacting ability of new operators to effectively compete in terms of quality and cost with these incumbent operators. The incumbent operators wish to further consolidate their spectrum holding which may have far reaching adverse impact on competition.
- (v) Any furtherance of policy for unlimited access to spectrum even through an auction will provide strong incentive for incumbent operators to acquire a level of spectrum holdings to marginalise or foreclose their competitors, undermining their ability to compete sustainably with the incumbents in the future.
- (vi) TRAI has held that Indian operators have spectrum requirement only upto the prescribed limit i.e 8/10 MHz for GSM and 5/6.25 MHz for CDMA for serving the Indian Subscriber base with reasonable market share. If operators holding spectrum more than the prescribed limit are allowed to participate in the auction then it would make it impossible for few operators to reach even the minimum efficient scale with 6.2 MHz spectrum. **The spectrum holding beyond the Prescribed limit by incumbents would create spectrum capacity constraint for new operators preventing effective competition.**
- (vii) Adherence to the Prescribed Limits will protect effectively against strategic bidding being employed to reduce competition. Spectrum caps thus would create a “level playing field”.

- (viii) RCOM considers application of Prescribed limit cap which is 10 MHz in Delhi & Mumbai and 8 MHz in other circles for GSM and 6.25 MHz in Delhi & Mumbai and 5 MHz in other circles for CDMA will substantially equalise spectrum holdings that would secure optimum competition in the Telecom market and going forward would even facilitate spectrum liberalisation.
- (ix) **In view of the above RCOM recommends that there should be a spectrum cap for 2G equivalent to the prescribed limit and incumbents already holding Prescribed Limit of spectrum should not be allowed to participate in the proposed auction.**

Annual Spectrum Charges

- (i) Incumbent operators have recommended uniform spectrum usage charges for 2G spectrum.

RCOM Counter Comments

- (ii) The uniform spectrum usage charges does not merit consideration as it will result in the Government losing thousands of crores of Rupees over the next couple of years and will also discourage efficient utilization of spectrum, distort competition and also distort the level playing field.
- (iii) Incumbent operators have submitted that since spectrum is being auctioned there should not be any requirement to pay spectrum usage charge. This justification has no basis to abolish spectrum usage charge if the spectrum usage charge are made known to bidders before auctions then bidder would factor this charge while bidding.
- (iv) Many operators wrongly believe that if spectrum is being charged beyond 4.4 MHz at a market price, then spectrum usage charge can be made uniform across all operators irrespective of spectrum holding. It is submitted that spectrum usage charge cannot be made uniform irrespective of spectrum holding. Spectrum usage charge and spectrum acquisition fee are different and TSPs have to bear both the charges.
- (v) The spectrum usage charge should depend on the quantum of spectrum assigned to service providers in the 900 and 1800 MHz bands for GSM service and 800 MHz spectrum band for CDMA service. The annual charges vary from 3% to 8% of the Adjusted Gross Revenue (“AGR”).

- (vi) The current policy of escalating spectrum charges for higher allocation of spectrum was adopted to discourage substitution of physical infrastructure by spectrum. There is no logic to impose a lower flat spectrum usage charge across all operators irrespective of their spectrum holding as it will create a non-level playing field between new and established operators providing enormous regulatory benefit for operators holding larger chunk of spectrum as they will be saving on capital investment but pay charges at the same rate. This will also encourage spectrum hoarding. Thus flat charges cannot be implemented unless all operators have equal amount of spectrum.
- (vii) The current charge for spectrum up to 2x4.4 MHz is 3% hence all the new entrant operators with the start-up 2x4.4 MHz spectrum should also pay 3% spectrum usage charge. In case spectrum usage charges are uniform the incumbents will stand to gain as their annual spectrum charges liability would substantially reduce e.g. from 5% to 3%.
- (viii) **Therefore incumbents views for flat spectrum fee or other submissions for abolishing spectrum usage charges should be ignored.**

Pricing of 1800 MHz and 800 MHz spectrum

- (i) Incumbent operators have suggested that 800 MHz 2G spectrum should be priced at 1.5 times the 1800 MHz 2G spectrum band. This suggestion is not based on any techno-economic study and therefore does not merit any consideration.

RCOM Counter Comments

- (ii) The parameters like effective market access for 2G is considerably low in today's reality with intense competition, lowest ARPU levels, increased OPEX, higher finance cost, increased marketing cost and limited access to capital, have a significant bearing on the ability to support spectrum acquisition cost and yet have a sustainable business model. Any reserve price setting should reflect the above parameters and we strongly believe that the market cannot sustain a reserve price at the 3G reserve price levels. Global telecom economist driven models do not justify such reserve price levels.
- (iii) Also any reference to Rs 1659 crores plus SBI PLR should be corrected with a effective factor taking into account all the current market reality based factors as indicated above and also taking reference our earlier submission where all such parameters have identified, quantified and basis for arriving at such correction factor was indicated as a part of our comments to the consultation paper.

- (iv) The 2G Auctions should be restricted to 1800 and 800 MHz for GSM and CDMA services in slots of 4.4/1.8 MHz and 2.5/1.25 MHz respectively. Auction must be done separately for 800 MHz and 1800 MHz.
- (v) The CDMA reserve price should be at a fractional level of 2G 1800 MHz spectrum price as the above indicated market parameter are much worse by an order of magnitude for CDMA service proliferation going forward in the market. Thus there is an imperative need to correct the hitherto suggested norm of pricing 800 MHz at 1.5 times 1800 MHz spectrum band.
- (vi) All over the world recent auctions have all been for 4G and therefore globally auction discovered prices for 800/1800MHz spectrum for 4G services has no relevance to the reserve price for 2G spectrum auction. Therefore option to decide 2G spectrum reserve price based on global auctions for 4G services should be ruled out.
- (vii) The eco system for CDMA and GSM technologies are different resulting in entirely different valuation of 800 MHz spectrum for CDMA and 1800 MHz spectrum for GSM. The CDMA spectrum in 800 MHz has much lower value compared to 1800 MHz as there is much lower adoption CDMA services compared to the GSM services. The following parameters impact the valuation of 800 MHz vis-a-vis 1800 MHz spectrum:
- The CDMA has much lower adoption rate as almost 85% of the global subscriber base is on GSM and only remaining 15% on CDMA
 - CDMA equipment and devices have much higher prices compared to GSM due to economies of scale advantage heavily in favour of GSM
 - CDMA ARPUs are lower at Rs 71 against Rs 93 for GSM
 - CDMA technology has limited market for international roaming
 - The Government has not provided growth path for the CDMA operators to provide expansion for capacity and for migration to broadband.
- (viii) Considering the above mentioned reasons the reserve price for 800 MHz should be much lower than the 1800 MHz spectrum. **The TRAI's earlier recommendation to price 800 MHz spectrum band for CDMA at 1.5 times the 1800 MHz spectrum band is not based on any techno-economic study and not consistent with then as well as the current market realities and was simply done based on a simple coverage criterion.** Since the CDMA ARPUs are much lower compared to GSM subscribers, the devices and infrastructure is expensive for CDMA, the adoption rate is only 15% against 85% for GSM, the valuation of CDMA spectrum in 800 MHz is fraction compared to the valuation GSM spectrum in the 1800 MHz band.
- (ix) **Hence 800 MHz 2G spectrum valuation for CDMA is much less than the 1800 MHz 2G spectrum for GSM.**

- (ix) We have carried out detailed techno-economic modelling for determining the spectrum Reserve Price in 1800 MHz and 800 MHz based on current market realities. We would be ready to discuss with Authority.

Payment of Spectrum auction Fee in instalments

- (i) Incumbent operators are preferring upfront payment of auction fee.

RCOM Counter Comments

- (ii) 2G auction are forced at this stage due to Supreme Court judgment and directives to ensure level playing field.
- (iii) Hitherto in the recent decade there have been no instances of upfront payment for any 2G spectrum auction.
- (iv) 2G industry in India is facing an unusually high debt levels. At the same time access to global capital and lending market is very much restricted.
- (v) 2G market realities indicate huge challenges with reference to sustenance due to intense competition, much lower market access, lower ARPU levels, increased OPEX, much lower growth rates and much lower EBITDA levels. To be able to cope up with all these financial challenges, we strongly recommend the phase payout of auction discovered price. This in turn would create a level playing field as this auction is forced upon by the Supreme Court judgment considerably impacting the later entrants compared to the incumbents.
- (vi) 3G and BWA payments situation of yesteryears cannot be compared and used as a reference for opposing the phased payout as the current situation is as a result of an unusual circumstance under unexpected conditions forcing a 2G auction.