

**Appendix to the Futures Group letter dated 11<sup>th</sup> November 2009**  
**Question-wise response**

Chapter 1

Spectrum requirement and availability

1. Do you agree with the subscriber base projections? If not, please provide the reasons for disagreement and your projection estimates along with their basis?

Forecasting technique applied for demand projection is OK. But it is not clear whether the technique has been applied to individual licensing areas and then aggregated or applied on the country's annual aggregate values as a whole, which would lose the effect of the specificities of individual licensing areas on demand. Businesses and household incomes and other development trends in each licensing area will influence demand. Multiple SIM cards, inactive SIM cards, particularly prepaid, also distort demand projections.

2. Do you agree with the spectrum requirement projected in ¶ 1.7 to ¶1.12? Please give your assessment (service-area wise).

No comments.

3. How can the spectrum required for Telecommunication purposes and currently available with the Government agencies be re-farmed?

To services where it can be utilized with maximum economic efficiency.

4. In view of the policy of technology and service neutrality licences, should any restriction be placed on these bands (800,900 and 1800 MHz) for providing a specific service and secondly, after the expiry of present licences, how will the spectrum in the 800/900 MHz band be assigned to the operators?

We should follow global standards as agreed at ITU-T, ETSI, IEEE and other standardization bodies and not be overawed by the principle of technology and service neutrality in order to avoid costs of customization/ universalization of equipment by vendors in bands not originally intended, which would otherwise apply. Standardization of radio frequency bands for Wireless systems is a long drawn consultative process that takes into account several technical factors to ensure efficient and economic utilization of the bands and cannot be ignored.

5. How and when should spectrum in 700 MHz band be allocated between competitive services?

As and when it gets vacated from broadcasting services.

6. What is the impact of digital dividend on 3G and BWA?

This would depend on the utilization of analog broadcast band vacated and its utilization potential for telecommunication services. The impact of availability of spectrum in 700MHz band and its utilization potential needs to be thoroughly examined by TEC.

## Chapter 2

### Licensing issues

7. Should the spectrum be delinked from the UAS License? Please provide the reasons for your response.

The UAS license allows the flexibility or choice to an access provider to provide service to the customers employing either or both of the fixed and wireless technologies, depending on the infrastructure in place and market dynamics and other business considerations. Once the flexibility is given, spectrum is *ipso facto* committed. Delinking of spectrum will restrict the choice of the licensee and annul the underlying principle of UASL.

8. In case it is decided not to delink spectrum from UAS license, then should there be a limit on minimum and maximum number of access service providers in a service area? If yes, what should be the number of operators?

Effective competition should be the primary basis for determining the number of operators.

9. What should be the considerations to determine maximum spectrum per entity?

Auction is the process which would automatically limit the attempt to garner spectrum when it starts diminishing its economic value.

10. Is there a need to put a limit on the maximum spectrum one licensee can hold? If yes, then what should be the limit? Should operators having more than the maximum limit, if determined, be assigned any more spectrum?

Let the market determine it.

11. If an existing licensee has more spectrum than the specified limit, then how should this spectrum be treated? Should such spectrum be taken back or should it be subjected to higher charging regime?

This would arise in case a limit is imposed (refer question 9 above (Chap.2, Q. 3.) Taking back the spectrum would depend on the conditions of the existing allocation. There might be legal implications. Our focus should however be that excess spectrum should be taken back.

12. In the event fresh licences are to be granted, what should be the Entry fee for the license?

Licensing fee should be determined by the market. Any other process would encourage takeover of new licensee by a stronger player.

13. In case it is decided that the spectrum is to be delinked from the license then what should be the entry fee for such a Licence and should there be any roll out condition?

Delinking is not recommended.

14. Is there a need to do spectrum audit? If it is found in the audit that an operator is not using the spectrum efficiently what is the suggested course of action? Can penalties be imposed?

Monitoring and audit of Spectrum usage are mandatory obligations of Spectrum regulating authorities and subject to penalties. Penal action may consist of fines and revocation of assignment and license.

15. Can spectrum be assigned based on metro, urban and rural areas separately? If yes, what issues do you foresee in this method?

Yes, particularly, 450 MHZ in rural areas.

16. Since the amount of spectrum and the investment required for its utilisation in metro and large cities is higher than in rural areas, can asymmetric pricing of telecom services be a feasible proposition?

If spectrum price is determined through auction, respective markets will determine it. Asymmetric pricing assumes 'command and control' mechanism of spectrum allocation and should not be applied in an open competitive market. Real value will be determined by market.

## **M&A issues**

### Overall Comments

The regulatory authorities would do well to follow the principle of least interference.

Lock-in is essential to promote entry of serious players. Removal of lock-in condition will result in adventurist bidding to garner license, profiteering and possible corruption.

17. Whether the existing licence conditions and guidelines related to M&A restrict consolidation in the telecom sector? If yes, what should be the alternative framework for M&A in the telecom sector?
18. Whether lock-in clause in UASL agreement is a barrier to consolidation in telecom sector? If yes, what modifications may be considered in the clause to facilitate consolidation?
19. Whether market share in terms of subscriber base/AGR should continue to regulate M&A activity in addition to the restriction on spectrum holding?

20. Whether there should be a transfer charge on spectrum upon merger and acquisition? If yes, whether such charges should be same in case of M&A/transfer/sharing of spectrum?
21. Whether the transfer charges should be one-time only for first such M&A or should they be levied each time an M&A takes place?
22. Whether transfer charges should be levied on the lesser or higher of the 2G spectrum holdings of the merging entities?
23. Whether the spectrum held consequent upon M&A be subjected to a maximum limit?

### **Spectrum Trading.**

#### Overall Comment

Spectrum trading should be allowed so as to realize its full economic value and to ensure that it does not lie unutilized with an assignee and is available to the sector to utilize it.

24. Is spectrum trading required to encourage spectrum consolidation and improve spectrum utilization efficiency?
25. Who all should be permitted to trade the spectrum ?
26. Should the original allottee who has failed to fulfill "Roll out obligations" be allowed to do spectrum trading?
27. Should transfer charges be levied in case of spectrum trading?
28. What should be the parameters and methodology to determine first time spectrum transfer charges payable to Government for trading of the spectrum? How should these charges be determined year after year?
29. Should capping be limited to 2G spectrum only or consider other bands of spectrum also? Give your suggestions with justification.
30. Should size of minimum tradable block of spectrum be defined or left to the market forces?
31. Should the cost of spectrum trading be more than the spectrum assignment cost?

### **Spectrum sharing.**

#### Overall Comment

Sharing of spectrum should be allowed and modalities should be left to the operators to ensure successful collaboration among the sharing parties.

32. Should Spectrum sharing be allowed? If yes, what should be the regulatory framework for allowing spectrum sharing among the service providers?
33. What should be criteria to permit spectrum sharing?
34. should spectrum sharing charges be regulated? If yes then what parameters should be considered to derive spectrum sharing charges? Should such charges be prescribed per MHz or for total allocated spectrum to the entity in LSA?
35. Should there be any preconditions that rollout obligation be fulfilled by one or both service provider before allowing the sharing of spectrum?
36. In case of spectrum sharing, who will have the rollout obligations? Giver or receiver?

### **Perpetuity of licences.**

#### Overall Comment

The term should be commensurate with the license for service: UL, UASL, BWA or what have you. Assignment should cease on expiry of license term.

37. Should there be a time limit on licence or should it be perpetual?
38. What should be the validity period of assigned spectrum in case it is delinked from the licence? 20 years, as it exists, or any other period
39. What should be the validity period of spectrum if spectrum is allocated for a different technology under the same license midway during the life of the license?
40. If the spectrum assignment is for a defined period, then for what period and at what price should the extension of assigned spectrum be done?
41. If the spectrum assignment is for a defined period, then after the expiry of the period should the same holder/licensee be given the first priority?

### **Uniform License Fee**

#### Overall Comment

Uniform license fee does not produce technical and economic efficiency. It is too simplistic

42. What are the advantages and disadvantages of a uniform license fee?
43. Whether there should be a uniform License Fee across all telecom licenses and service areas including services covered under registrations?
44. If introduced, what should be the rate of uniform License Fee?

## Chapter 3

## Spectrum assignment

45. If the initial spectrum is de-linked from the licence, then what should be the method for subsequent assignment?

Delinking may not be considered.

46. If the initial spectrum continues to be linked with licence then is there any need to change from SLC based assignment?

47. In case a two-tier mechanism is adopted, then what should be the alternate method and the threshold beyond which it will be implemented?

48. Should the spectrum be assigned in tranches of 1 MHz for GSM technology? What is the optimum tranche for assignment?

49. In case a market based mechanism (i.e. auction) is decided to be adopted, would there be the issue of level playing field amongst licensees who have different amount of spectrum holding? How should this be addressed?

Just as market shares and revenues are different, so can be spectrum.

50. In case continuation of SLC criteria is considered appropriate then, what should be the subscriber numbers for assignment of additional spectrum?

51. In your opinion, what should be the method of assigning spectrum in bands other than 800, 900 and 1800 MHz for use other than commercial?

## Spectrum pricing

52. Should the service providers having spectrum above the committed threshold be charged a one time charge for the additional spectrum?

It should be legally sustainable.

53. In case it is decided to levy one time charge beyond a certain amount then what in your opinion should be the date from which the charge should be calculated and why?

54. On what basis, this upfront charge be decided? Should it be benchmarked to the auction price of 3G spectrum or some other benchmark?

55. Should the annual spectrum charges be uniform irrespective of quantum of spectrum and technology?

Related to quantum and revenues earned.

56. Should there be regular review of spectrum charges? If so, at what interval and what should be the methodology?

Yes. Review every five years.

Structure for spectrum management

57. What in your opinion is the desired structure for efficient management of spectrum?

The existing structure is well proven. It needs to be strengthened and allowed to function under a Technocrat of the level of Secretary to the Government of India.

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