D.O.No.250-14/2000-Fin.(DF) (Vol.II)
Dated June 23, 2000.

Dear Shri Ghosh,

The Telecom Regulatory Authority of India received three references from the Ministry of Communications with regard to Cellular Mobile Services (CMS). These references sought TRAI's recommendations on the following:-

(i) Quantum and structure of licensee fee payable by Circle CMS providers in the extended period of license from 11th to 15th years (Min. of Comm. No. 842-153/98-VAS dt. 7.10.98)

(ii) Pursuant to National Telecom Policy 99, the appropriate level of entry fee, percentage of revenue to be shared with the licensor, definition of revenue for the purpose and the basis of selection of new operators and any other issue considered relevant (Min. of Comm. No. 842-153/99-VAS (Vol.IV) dt 23.4.99)

(iii) License fee arrangement for migration of the existing operators of Cellular Metro and Cellular Circles to the new NTP'99 regime(Min. of Comm. No. 842-153/99-VAS (Vol.V) dt. 12.7.99)

2. Essentially, the issues on which recommendations were sought were:

A) Appropriate level of Entry fee, and basis of selection of new operators and entry of fourth operator
B) Percentage of Gross Revenue as license fee
C) Definition of Gross Revenue for the purpose of (ii)
D) Any other issues considered relevant.

3. We analysed fifteen CMS projects in the country and on 14th December, 1999 released "Consultation Paper on Issues Relating to Cellular Mobile Service" (No.99/6), for public consultations. This was followed by six Open House Discussions (OHDs) of which five were held in January, 2000 and the last in May, 2000. A Supplementary Note was issued prior to the sixth OHD, noting the occurrence of two recent events which had an impact on the CMS projects viz. Reduction in Customs Duty on CMS Handsets from 25% to 5% and the lower rates quotations for CMS system received by MTNL in the tenders

invited by them. After the sixth OHD, analysis for Metros was reviewed in the light of lower capex costs as indicated by the rates received in the MTNL tender. The analysis relating to the circles, however, were left unchanged as circles have a different investment pattern due to greater geographical spread and the resultant higher requirements for investments in network infrastructure. MTNL related data of capital expenditure can, therefore, be of limited use in evaluation of Circle projects, though it has to be recognised that the Circle projects also will benefit from declining cost of CMTS network elements. The results of the aforesaid analyses have been taken into account while formulating our recommendations.

4. For the purposes of clarity each issue on which TRAI's recommendation has been sought has been stated separately and recommendations have been given therefor.

4.1**(A) Appropriate level of entry fee, basis for selection of new operators and entry of fourth operator**

The issues under this head can be broken under three main subheads. These are :
(i) Level of entry fee;
(ii) Basis for selection of new operation;
(iii) Entry of the fourth operator.
We take these issues sequentially.

4.2 (1) ***Level of Entry Fee:-***

New operators are to be licensed in the following vacant circles/slots:
(a) Jammu & Kashmir - Andamans & Nicobar Islands;
(b) Assam and West Bengal;
(c) DOT/MTNL as the third operator.
(d) Fourth operator in circles where migration has been permitted.

4.3 DOT/MTNL wherever they come in as the third operator as also the fourth operator to be introduced will be required to pay as licence fee the same percentage share of their revenue as recommended by TRAI for the existing CMSPs who are being allowed to migrate to revenue sharing arrangement in accordance with NTP 99. The fourth operator will also pay an entry fee which will be fixed through a process of bidding.

4.4 For the two new operators each in J&K, Andaman & Nicobar, and the second operator in both Assam and West Bengal circles, the TRAI is to recommend the quantum of license fee as well as the entry fee payable.

4.5***(ii) Selection of new operators:***

The TRAI recommends that all new operators barring DOT/MTNL be selected through a competitive process. This is recommended to be a multi stage bidding process preceded by a pre-qualification round.

4.6 ***Pre-qualification***

Prospective operators would be required to meet pre-determined criteria in order to qualify to bid for the licence. Pre-qualifications will mainly be on the following grounds :-

- Financial strength and experience as Telecom Service Provider
- Minimum roll out obligation
- Technical Plan
- Business Plan
- Payment terms and other commercial conditions

It is recommended that prospective bidders who meet the pre-determined threshold as set out in the pre-qualification criteria be short-listed for bidding for entry fee in the next stage. No weightages need be attached to the pre-qualification criteria. The criteria for pre-qualification could be developed on the following lines:-

4.7 ***(i) Financial strength and Roll out obligation***

| Service Area | Financial strength<br><br>Networth = Rs.(Cr.) | Roll out obligation<br><br>Access to subscribers ('000) |
|---|---|---|
| Metro | # | # |
| Circles | # | # |
| Category A | # | # |
| Category B | # | # |
| Category C | # | # |

# Details of financial strength and Roll out obligations can be the same as in the case of the existing licenses.

4.8 (ii) **Technical Plan**
The criteria for qualifying technical plan should be based on the mandatory part of the technical specifications contained in the tender

document relating to the bid. The details will need to be drawn up by technical experts taking into account the latest developments in Cellular Mobile Technology and the present state and feasibility of their introduction in the country. The plan should give the evolutionary path to be followed for introduction of seamless national and international roaming and introduction of the state of the art tele-services.

4.9 (iii) **Business Plans**

Pre-qualification criteria in respect of the business plans will also be required to be set carefully indicating the parameters on which the acceptability of the plan will be judged. The main parameters of judgement under this head will be:

a) Financial feasibility : Determine the reasonableness of cost estimates, suitability of the envisaged pattern of financing and general soundness of the capital structure.

b) Commercial viability: Ascertain the extent of profitability of the plan and its sufficiency in relation to the repayment and other obligations involving outgo of funds from the business e.g. payment of the license fee. It will also have to be seen whether the business plan provides for generation/infusion of funds at the appropriate time to meet the emerging needs of future capital expenditure for upgradation of technology. The ability to keep the service cost to the consumer under check and to effect reduction therein as situation/market demands will be another important parameter of judgement.

c) Managerial capability : Ascertain that competent persons are behind the project to ensure its successful implementation and efficient management after commencement of commercial production

4.10 (iv) **Payment terms and commercial considerations**

The payment terms and commercial conditions should be carefully spelt out and their unconditional acceptance by the bidder will be one of the crucial factors in pre-qualification.

4.11 **The Structure of the Bidding Process**

Selection from amongst all those who pass the pre-qualification round will be by a process of bidding. The bids will be carefully structured so as to guard against the possible misuses of the process such as pre-emptive over-bidding or cartelisation. For this purpose, a bid structure involving "Multi Stage Informed Ascending Bids" is recommended. It is also recommended that such bids be invited for the entry fee for selection of operations and issuing licenses to them. Although, as recommended earlier in the case of NLDO, TRAI is primarily of the opinion that because of its greater relevance, direct impact on operations and being equitable, revenue sharing is a better basis on which to invite bids for licenses, in the case of CMSPs this choice is not available except in two vacant circles/slots. The 34 incumbent operators have already been given licenses through a process of bidding and it would not be correct to subject them to yet another process of bidding, this time concerning revenue sharing. They have already been asked to pay as license fee, albeit on a provisional basis a fixed amount of the revenue share viz. 15%. It is, therefore, recommended that a fixed percentage of revenue share be paid by all operators as the license fee and this percentage be the same for all the operators barring the exceptions specifically mentioned in the paragraph 5.9 below.

4.12 While, the detailed bid structure can be prepared at the time bids are being called and assistance/advise of experts may be taken in doing so, based on the experience of such successful bids elsewhere, the basic outlines of the proposed structure can be given. Bids can be invited for more than one licence at a time. The total number of rounds in which the bids will be finalised will be pre-determined and all bidders should be eligible to bid for all licenses on offer in each of the rounds. The licensor, may, however, if it so desires, stipulate beforehand the total number of licences that can be finally allotted to a single bidder. The TRAI's recommendation in this regard is that the number of licences that can go to a single bidder need not be restricted. This will favour the serious and techno-financially strong bidders and will help keep the bids at operationally feasible optimal levels.

4.13 After each stage of bidding, bids received will be made public and all bidders (those lower than the highest bidder as well as the highest bidder) will be permitted to raise their bids in the subsequent rounds of bidding. The process will be deemed complete only on the completion of the pre-determined number of bid rounds at the end of which the highest bidder for each licence will have the claim to the license in question. Licences will become effective on payment of the amount of the winning bid for the entry fee within a period specified in the tender document.

4.14 The same process of bidding will also enable selection of operators where two slots in the same circle are vacant viz. J & K and Andaman and Nicobar where no operators exist. In these circles, two bidders may be selected and it is recommended in this regard that while the second highest bidder in these circles may be considered for the second slot available, he need not be asked to match the bid of the highest bidder. It may be provided though that if the difference between the first and the second highest bids is substantial, say more than 25 %, fresh bids for the second slot will be invited. Such an arrangement while being equitable will act as a good incentive for attracting bids for these circles which have not proved to be attractive in the past.

**(III). Entry of the Fourth Operator:**

4.15 DOT/MTNL, the incumbent in basic services, are to enter the field of cellular mobile services as the third operator in terms of NTP 99 with the existing availability of spectrum. TRAI, however, has no information about the availability of spectrum either for the third or the fourth operator. The financial analysis conducted by the TRAI for the purpose of studying the revenue share which the operators can part with as licence fee assumes entry of the third operator in the sixth year of licence i.e. in the current year and of another i.e. the fourth operator two years later in accordance with NTP 99. The analysis reveals that even if the business in each of these metropolitan areas and circles is required to produce a reasonable IRR say 16-18 % and a decent return on the capital say around 20%, it would still enable the operators to share upto about 25% of the Gross (adjusted) revenue as the licence fee. In the circumstances, it would be reasonable to assume that on purely economic grounds, in most circles there is even at present, a fair case for the entry of the fourth operator. In this context, however, more than the market, the determining factor has to be the availability of a spectrum and its optimal utilisation. Moreover, it is also a matter for careful consideration that even when additional spectrum is released, whether it should be utilised to augment the number of service providers or for improving the quality and coverage of the already available services. In the GSM 900 band the maximum frequency spectrum made available to the operators in a large number of countries is a pair of 12.5 MHz. Against this in India the circle operators have been given a pair of less than 5 MHz and the metro operators of less than 7 MHz. It is learnt that in a number of metros and circles, no further expansion of services is possible unless additional spectrum is made available to the existing operators. Paucity of frequency spectrum is also adversely affecting the quality of service in a number of service areas. In the circumstances a fair balance between the two objectives of increasing competition on the one hand and improving the quality, coverage and price-efficiency of the service on the other will have to be struck so that the larger objective of providing quality services at affordable prices is not jeopardised. A sub-optimal cost structure and quality of service may finally turn out to be detrimental to the growth of tele-density notwithstanding a higher number of service providers. Similar views were expressed also by the BICP in their report on Cellular Mobile Services (para 20 page-V of the report). Accordingly, TRAI is of the opinion that a view can be taken in this matter only after getting a full report from the DOT on the quantum of spectrum being made available for the CMSPs, existing as well as the proposed new entrants and its location i.e. whether it is going to be in the 900 MHz or in1800 MHz bands.

**B. Revenue Share as Licence Fee:**

5. Any exercise undertaken for arriving at a given percentage of revenue share as licence fee can neither be foolproof nor incontestable. Despite all the care taken so that the data used for the analysis is fully representative and reliable, the scenario of growth and profitability built thereupon remains somewhat hazy. Nonetheless, an effort is required to be made and very widely divergent views on revenue sharing which range from the least possible revenue to be shared i.e. around 1-2 % to 40% of the revenue to be shared as licence fee, have to be balanced.

5.1 A detailed analysis of the business cases of different operators in the metros and some of the circles carried out by the TRAI on the basis of figures provided by them, indicates that it would be possible for them to get from the businesses an IRR of 16-18 % and in some cases even more as also a return on equity (ROE) of 20% or more. The figures for the analysis have been provided by six out of eight metro operators and nine out of thirty four operators in the circles. An important conclusion emerging from the analysis is also that by and large the IRR available on the business is not very highly impacted by the amount of revenue shared if the difference remains within a range. Tables 1-2 in Section 1 of the memorandum attached hereto indicate that a revenue share of even higher than the present provisional 15 % can be borne by the operators without any difficulty. The results of the analysis including the numbers relating to IRR and ROE emerging therefrom form a part of the discussion paper issued by the TRAI on the subject.

5.2 As stated above the responses in regard to the revenue share which
should be payable by the operators as licence fee ranged from the very low 2-3% to as high as 40% and more depending upon the viewpoint owned by the persons/organisations concerned. A careful

examination of all the issues involved, however, leads us to the conclusion that the real answer lies not in any one of the two extremes but in a rational synthesis of the two points of views.

5.3 While the operators should share a part of the revenue for the advantages gained, they should also be enabled to generate and retain funds from the business so that they can continue to make further investments in the business. Fast growth as well as changing technology will make such further investments inevitable. Surpluses beyond that requirement can be passed on to the customers by way of reduction in prices, either voluntarily by the operation themselves or through a tariff regime enforced by the regulator.

5.4 TRAI considers that in the overall revenue share taken as licence fee there have to be two components viz. (a) an identifiable part to cover the cost of USO, R&D, and administration and regulation and (b) a reasonable amount of rent. In our view the revenue share parted with as licence fee has also to represent a payment for frequency spectrum which is a highly limited national resource. It should be seen as a price for the opportunity of using the spectrum in the present situation of limited competition and is not being recommended as a means for raising revenue. If the business generates high net surpluses the appropriate mode for the Government to partake of such surpluses will be through the taxation regime to which all operators will in any case be subject.

5.5 In this context it would be desirable to dwell for a while also upon the view that license fee should be the bare minimum, just enough to cover the cost of administering it. This has been professed quite persistently by the Cellular Operators' Association of India (COAI). Having examined it carefully we have found it to be unsustainable in the Indian context. The revenue share paid by the operators needs also to represent a fair compensation for the utilisation of the limited spectrum which provides them opportunities of business in preference to others. In other countries too a sizeable payment has had to be made by the operators for the use of frequency spectrum. It has also to be taken into consideration that no particular sector of economic activity ought to be allowed to operate with such advantages as are unavailable to other sectors of the economy, as it would tend to produce distortions in the investment flow making corrections inevitable in not too distant a future. And finally, it must be remembered that the question of revenue share is being considered in the background of the existing operators having migrated to revenue sharing regime from the earlier fixed licence fee arrangement and that if the operators were to follow the initially contracted system of paying the licence fee, in terms of revenue share it would have worked out to be in excess of 30% in the metros as well as in the majority of the circles.

5.6 Having considered all the connected issues and the different views expressed in the course of the discussions we find that the revenue share recommended by us in the paragraph-5.9 is the most reasonable and practical. It is also recommended that the overall percentage be clearly bifurcated in two parts as outlined above i.e. one to cover USO, R&D and the cost of administering the licence and regulation and the other as the fee for licence. In the case of NLDO we had recommended the first component to be at a figure of 7 %, 5% for the USO and 2% for the R&D, administration as well as regulation. While even these figures are provisional and a detailed work on U.S.O. estimation is still in process, in order to introduce the levy, here too we would recommend that this much revenue may be seggregated and accounted for separately from the total amount to be received as the licence fee. In a country as big as ours and with so huge a deficiency in universal service requirements, the related levy may have to be revised upwards from time to time at least for the next 10 years.

5.7 As we follow the above structure of licence fee, it would mean that as from the 1st of August, 1999, which is the date from which migration is to become affective certain recoveries would need to be made from the operators. It would be desirable to place this entire amount on recovery in a separate account towards the USO/R&D/administration cost of the proposed license fee. In these cases, therefore, a lower revenue sharing has been suggested. This may be kept subject to review after a period of 5 years. The review will be with the objective of considering the desirability of bringing it at par with other circles.

5.8 In this connection the TRAI has also taken into consideration the weak business case of some of the circles two of which namely Jammu & Kashmir and Andamans and Nicobar could not attract so far even a single operator. Both these are category 'C' circles which do not seem to hold any attraction for the operators without some special incentive, at least, in the initial years of the business.

5.9 In the conclusion we recommend the following licence fee for the various vacant slots :-

- the percentage of revenue share for the 4 vacant slots in the Andamans and Nicobars and Jammu & Kashmir circles will be 10% percent of the adjusted gross revenue;
- The percentage of revenue share for incumbent migrating CMSPs in the 42 slots shall be 17% percent of the adjusted gross revenue.
- The percentage of revenue share for the one slot each available in Assam and West Bengal will be 17% percent of the adjusted gross revenue.
- The percentage of revenue share for fourth operators slot in 18 circles and 4 metros will be 17% percent of the adjusted gross revenue.
- DTS/MTNL will pay the same percentage of revenue share as licence fee for the respective metros and circles in which they are licenced as the third operator

**C. Definition of revenue for the purpose of calculating revenue share:**

6. The TRAI recommends the following definition of adjusted gross revenue for the purpose of the revenue share set out at (ii) above:

"Adjusted Gross Revenue" for the purpose of levying license fee as a percentage of Revenue Share shall mean the "Gross Revenue" accruing to the Licensee by way of operations of the Cellular Mobile Service mandated under the license (inclusive of revenue on account of value-added services, supplementary services, and the sale of handsets) plus revenue accruing through resellers, franchisees etc. plus any revenue foregone through subsidies on handsets or any other rebates, as reduced by the following items:

i) Interconnection/Access charges payable to other Service providers for carriage of calls
ii) Roaming revenues collected on behalf of other Cellular Mobile Service Providers and passed on or liable to be passed on to them;
iii) Service tax paid or payable;
iv) Sale of handsets

This definition is applicable to all categories of service areas for CMS, i.e.
- For the four vacant slots in Andaman & Nicobar and Jammu & Kashmir Circles
- For the incumbent migrating operators in the 42 slots
- For the one slot each available in Assam and West Bengal

- For the fourth operator slots in 18 circles and 4 metros
- For DOT(DTS)/MTNL where they enter as third operator

**(iv) Terms and conditions of license:**

The TRAI recommends that the Clauses of the existing Cellular Mobile Service Provider licenses be modified to incorporate the above recommended entry criteria, selection procedure, entry and license fee and a definition of revenue.

With regards,

Yours sincerely,

**( M.S.Verma )**

**Shri Shyamal Ghosh,**
Secretary,
Department of Telecommunications,
Sanchar Bhavan,
New Delhi.