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## FACSIMILE

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**To : Mandla Mchunu  
Spectrum Management  
ICASA**

**Fax No. : 011 566 3292**

**Date : 21<sup>st</sup> May 2009**

**From : Bernie Bowers  
CTO  
Altech Netstar (Pty) Ltd**

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**Attention: Mandla Mchunu**

**Ref: Government Gazette No. 32029 of 16<sup>th</sup> March 2009**

We hereby submit our comments on the proposed radio spectrum fee regulations:

- 1) In general, we agree with the methods of spectrum pricing but would like to add the following for consideration:
  - a. We propose that an incentive be implemented for spectrum usage efficiency. For example the charge for bandwidth should be modified to charge for amount of data/information per Hz of bandwidth. Specifically for data systems the encouragement would be for spectrum efficient modulation schemes so as to allow for a high number of Bits/Hz.
  - b. The proposed charges will prejudice new technology where Direct Sequence Spread Spectrum (DSSS) systems are used. These systems generally require much wider bandwidth to operate in but can co-exist with other systems and are also very efficient with respect to the number of concurrent users, much more so than existing systems utilizing Frequency Division Multiplexing (FDM) and Time Division Multiplexing (TDM) to achieve the same number of users or subscribers. Hence a factor that considers number of Users/Hz should be implemented.
  - c. Very low data/information rates used in burst mode can be used to accommodate very large numbers of users or subscribers. An example of paging systems, load management and vehicle tracking systems could be sited where many hundreds of thousands of users are accommodated on a single 12.5kHz channel.

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Directors: Dr J.E.W. Carstens (Chairman), A.J. Baker, H.P. Louw, E. Matthee, J. Stransky (Managing), C.G. Venter

This should also be encouraged and a factor in the costing model should be implemented that reflects a lower cost for increased numbers of users per Hz bandwidth.

- d. We submit that our interpretation of **clause 7.6.7 (Information)** of the proposed regulations is that the number of monitoring devices or tracking devices or tracking beacons will NOT form part of the formula for calculating the license cost. Only the actual spectrum used and number of base stations will be a factor. Is this a correct interpretation? If not, then the formula should be adjusted to incentivise the use of large numbers of users per channel (Users/bandwidth in Hz)

We do not require to give any oral representation as we consider the above to be clear and objective enough. However, we will be willing to discuss these matters in greater detail at any forum if requested by ICASA.

Yours sincerely,



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