



internet solutions

INTERNET SOLUTIONS SUBMISSION ON THE NOTICE INVITING COMMENTS REGARDING DRAFT RADIO FREQUENCY SPECTRUM FEE REGULATIONS.

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1. Introduction.

- 1.1 Internet Solutions (IS) welcomes the opportunity to comment on the Notice inviting comments regarding the draft radio frequency spectrum fee regulations. We also wish to request the opportunity to make an oral submission at any public hearings that ICASA may hold in this regard.
- 1.2 We believe that this is a significant step that is premised on recognition that radio spectrum is a critically important resource that is in very high demand. Our view is that the overarching challenge of spectrum policy is to ensure that public interest is best served by balancing competing demands for scarce spectrum while striving to promote competition through deployment of new technologies.
- 1.3 We live in the age of digital convergence which allows content and service providers to deliver their services through multiple delivery channels. Correspondingly consumers can access services via various terminals capable of consuming multimedia content. International experience shows that efforts to put convergence into practise have been complicated by problems related to spectrum scarcity. As spectrum reliant services are growing, the efficient use and equitable distribution of radio spectrum becomes important to the economy as a whole.
- 1.4 It is our submission that efficient use of spectrum is achieved through normal economic incentives. However decisions on allocation of spectrum will always have a major impact on competition in the market. It is therefore important to ensure that that there is a framework that facilitates allocation of spectrum in a way that promotes its efficient use in a competitive environment and which does not favour particular operators. It is with this approach in mind that we therefore embrace the initiative taken by ICASA to review the manner in which spectrum is priced and allocated.



2. Role of Spectrum Pricing.

- 2.1 Spectrum pricing refers to a range of spectrum management activities and tools including administrative fees, spectrum usage, and spectrum prices determined by way of market mechanisms. Developing spectrum pricing strategies invariably involves alignment with the government's and ICASA's revenue goals and objectives.
- 2.2 In terms of the proposed regulations ICASA has set out clearly that the spectrum fees are not intended to raise extra revenue for national treasury and that the general principle is that the application and annual fees in total should at least cover the cost of spectrum management and monitoring activities.
- 2.3 In this regard it would seem that the Authority seeks to rely on a cost recovery model. We understand that it takes money to run a spectrum regulatory agency including extensive resources like skilled labour, IT resources, investment in technical monitoring equipment, and expenditures to pay for participation in ITU and other international meetings.
- 2.4 It is therefore usually efficient, for licensees or groups of licensees to be liable for the direct regulatory costs which they impose, on the ground that such costs are 'caused' by each licensee. Each user should then expect a direct cost based licence charge when it seeks access to spectrum, just as it takes account of other costs which it incurs or imposes.
- 2.5 The activities of each licensee therefore impose direct costs on the regulator. These include the costs of issuing, maintaining data, spectrum monitoring and enforcing its individual licenses. Some costs will be common to a band or to a radio service (such as band planning); whereas others will be common to a group of bands and some, such as management overheads, will straddle all licensees.
- 2.6 Where however indirect costs predominate the matter should require reconsideration as high allocation of indirect costs may make the licences uneconomic especially for new entrants such as former VANS licensees in our case. In terms of the proposed regulations we have noted that



ICASA has sought to adopt a model of assigning spectrum fees which relies on an administered method which imposes extra pressure to economise by charging an annual fee for spectrum use. Charges which are set by the regulator with this objective in mind are called administered incentive prices (AIP) and we now turn to deal with this model in some detail.

3. Administered Incentive Prices in Practise.

- 3.1 At first sight, cost recovery fees might seem to fall in this category, but the primary motivation for this method is to fund the spectrum regulator (and perhaps gain some additional revenue). As a consequence, such fees may not be calculated to promote efficient spectrum use. Consequently our submission is that a good way of setting AIP is to make them equal the 'opportunity cost' of the frequency in question. This can be calculated by the increase in cost which would occur in producing the same service if the spectrum were replaced by another input – a different frequency or a non-spectrum input.
- 3.2 Doing this in practice will require ICASA to identify the relevant alternative or alternatives, and perform the necessary cost calculations. This will inevitably produce results which are only approximately accurate, but the regulator may conclude that it is better to apply incentives for cost efficiency via a price which is only approximately right, than not to charge any price at all.
- 3.3 If AIP's are based on opportunity cost, then it follows that they should be zero (and replaced, probably, by cost recovery prices based on direct cost only) if the spectrum has no alternative use. This might arise because:
 - there is no shortage of spectrum in the relevant frequency, so that all users can be accommodated;
 - there is a legal impediment to using the spectrum in question for other purposes; this might apply for instance, to spectrum used for the purposes of aeronautical communication.
- 3.4 An alternative way of setting AIP is to use prices observed in market transactions in the same or related frequencies. These could be taken from winning bids in auctions or from secondary



trades of existing licenses. These transaction prices will embody not only ‘opportunity costs’ – the cost-saving potential of the spectrum licence, but also any excess profits which the licence holder can derive through exclusivity or market power.

- 3.5 It is therefore our view that AIP is another tool available to regulators to encourage spectrum efficiency. It is applicable in an administrative regime for spectrum assignments and can be applied to private and public sector users. But the regulator must be sure that the AIP are taking effect. For example, if a licensee paying AIP on spectrum simply has its budgetary allocation increased to allow it to pay, there is no incentive to economize and the regime is ineffectual.

4. Auctions as means to allocate Spectrum

- 4.1 The proposed regulations set out that fees payable for each category of frequency spectrum must either be as determined by a pricing formula or by application of the minimum fee. However where the Authority determines that the assignment of frequency spectrum should be made on a competitive basis, the radio frequency licence fee may be determined on the basis of an auction.
- 4.2 It is our view that ICASA should tread carefully here as the method by which radio spectrum licenses are allocated is critical in shaping the nature of this industry. International experience indicates that countries which have used auctions as a means by which to allocate radio spectrum licenses have raised substantially more money than those countries which have used beauty contests or comparative licensing methods. In these countries the belief is that auctions have a big advantage over beauty contests because they are efficient and allocate licenses to those operators who value them most, rather than to those whom the regulators favour.
- 4.3 Britain and Germany, for example, raised billions respectively, whereas Spain raised only \$480 million. However some of the evidence that has come through from these jurisdictions indicates that auctions are a damaging tax on wireless services and consumers alike and that the high cost of licenses will slow the deployment of broadband services.

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- 4.4 In this regard it is our submission that although the auction route seems at first sight to expose ICASA to less risk and to hold out to the prospect of greater returns there is no evidence to show that these advantages materialize or even trickle back to the very industry that they are supposed to benefit. It is our view that the greater public interest issues like effective competition, affordable prices, greater coverage of under-serviced areas etc should all point to the inevitability of a beauty contest model.
- 4.5 To guarantee the integrity of the process ICASA can have the contest managed with defined criteria and in an objective, judicial way as far-removed from political processes as possible. We submit that this process will give the Authority a leverage to implement both economic and social objectives as per section 2 of the ECA.

5. The Linear Approach Model

- 5.1 The prevailing situation in our country in relation to spectrum has its origins to the traditional approach of spectrum allocation. This is an approach that was based on a model of first come first served, the end result of which is a situation where huge volumes of spectrum are now concentrated in the hands of a very few operators.
- 5.2 In order therefore to deal effectively with this situation several approaches which are premised on equitable distribution and efficient use of spectrum have to be undertaken. These approaches in line with the Electronic Communications Act have to be informed by a principle of allocation of spectrum that is technology neutral, should promote fair, efficient and effective spectrum use and should not reinforce existing dominant operators or continue to concentrate spectrum in the hands of certain operators.
- 5.3 The underlying principle of spectrum allocation should be that, subject to safeguards to avoid reinforcing the position of dominant operators access to available spectrum should be competitive and fair. It is with this view that IS supports the Authority's suggested linear approach which we submit will go a long way to discourse spectrum hoarding.

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- 5.4 We therefore support the view that spectrum hoarding can be lessened by setting appropriate price levels or by implementing market competition rules when demand rises dramatically. The linear approach on its own however does not address the urgent requirement to address spectrum hoarding and we do not believe that the alternative measures proposed will alleviate existing spectrum hoarding.
- 5.5 It is our view that ICASA should undertake a comprehensive audit process to gauge the efficient usage of current allocations to those operators that already have allocation in various frequency spectrum bands. Such an audit should be conducted as a pre-measure towards the enforcement of the principle of use it or lose it. If such unchecked and inefficient concentration of spectrum continues unabatedly, it will invariably result in lessening of competition, potential use of spectrum to keep competitors out of the market and a market that will perform far less than its true potential.
- 5.6 In considering applications for various frequency bands it is therefore paramount that ICASA should consider spectrum licensing methods which emphasize low tariffs, innovation and market growth. It is our submission that the linear approach suggested by ICASA should be designed in such a way that it penalizes those operators who are hoarding spectrum but at the same time should not increase the cost of spectrum to point where it becomes a burden some input cost that negatively affects the provision of competitive services by new entrants. ICASA therefore needs to follow a balanced approach that will have a positive impact on the future shape of the wireless providers services market.

6. Spectrum Trading

- 6.1 It our submission that one of the biggest constraints when it comes to access to spectrum in this market has been the lack of clarity on spectrum trading. Previously restricted under the Telecommunications Act of 1996 we have noted that the ECA has taken a more liberal and flexible approach towards spectrum trading.



6.2 As a consequence we have also noted that there has been a few transactions in the market where trading of spectrum was at issue which then suggests that this practice is already beginning to take off in the market albeit informally and without regulatory prescription. It is our submission that it is vital to allow current holders of scarce spectrum assignments to maximise the spectrum efficiency of their holdings by freeing up excess spectrum for other users on a commercial basis.

6.2 It is our submission that if secondary trading of spectrum is clearly defined through regulations it will be easier for licensees to transfer rights to other users and to achieve the following benefits for the country:

- Spectrum trading and liberalization will facilitate introduction of new services and promote innovation;
- Trading will remove barriers to market entry and promote competition in supply of spectrum-derived services

6.3 International experience also shows that there are clear benefits that can be associated with spectrum trading. Potential advantages of trading include facilitating market entry, permitting more rapid redeployment and faster spectrum access for innovators and new players and allowing new technologies to gain access to spectrum more quickly. For existing operators benefits could include the opportunity to sell unused or underused spectrum and make more flexible use of spectrum.

7. Efficiency in Processing of Applications

7.1 It has been our experience that current levels of service, turn-around time and transparency relating to dealing with applications for spectrum licences and enquiries to the relevant division of the Authority are, unfortunately, significantly lacking in this regard. There is currently no means by which an ECNS licensee seeking to obtain licensed frequency can gain access to complete information as to what licensed frequencies are available.

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- 7.2 IS submits further that, given that at least a portion of the fees payable are apportioned to cost-recovery on the part of the Authority, industry has a legitimate expectation of the Authority providing an efficient and transparent service. This will obviously have the further benefits of cost savings which can be passed on to consumers and more efficient usage of spectrum once assigned.
- 7.3 It is for this reason that IS submits that the proposed regulations should address the setting of deadlines for ICASA to process spectrum applications. This approach is already being followed by ICASA with a commitment to process numbering applications within a particular period of time. It is our submission that imposition of reasonable time periods to process applications would create better regulatory certainty for the industry.

8. Spectrum Database

- 8.1 In order to properly plan its network design and roll out licensees require information in advance which relates to the availability of frequencies in various bands. Such information is crucial in determining what sort of services a licensee can plan to provide in different areas of the market.
- 8.2 Currently such information is not immediately available from ICASA and getting access to it is not easy. In this regard we submit that it is absolutely necessary for the Authority to publish spectrum licences and frequencies assigned to different players and those that remain unoccupied. This will enable licensees to scope more accurately in terms of their wireless requirements and the partnerships that they can have with different players in the market.
- 8.3 We therefore wish to submit that the proposed regulations should address this issue and make it mandatory for ICASA to publish such a database and update it as frequently as is necessary to enable the industry to have accurate information on available spectrum.