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## GENERAL NOTICE

NOTICE 2691 OF 1998

**SOUTH AFRICAN TELECOMMUNICATIONS REGULATORY AUTHORITY**



### **NOTICE IN RESPECT OF A REVIEW OF APPLICATION AND LICENCE FEES IN THE SOUTH AFRICAN TELECOMMUNICATIONS SECTOR**

1. Notice is hereby given that the South African Telecommunications Regulatory Authority (SATRA) intends to conduct an enquiry under section 27 of the Telecommunications Act, 1996 (Act 103 of 1996) to review fees for applications and licences in the telecommunications industry.
2. The relevant topics on which the review is contemplated are published herewith.

3. Interested persons are invited to lodge written representations (together with 12 copies of each representation) in relation thereto to SATRA by post, for the attention of Mr Peter Hlapolosa, c/o SATRA, Private Bag X1, MARLBORO, 2063, or deliver by hand at SATRA, Block B, Pin Mill Farm, 164 Katherine Street, Sandton, Gauteng Province, or by fax at (011) 321-8536 by **not later than 12h00 on 30 November 1998.**
4. All representations and documents lodged with SATRA pursuant to this notice shall be open for public inspection by interested parties during the normal office hours of SATRA from 01 December 1998.
5. Representations and documents which SATRA considers to be confidential will not be available for public inspection. Persons submitting representations that they believe are confidential should indicate so clearly, together with their reasons. SATRA may, on receiving such requests, determine that such documents shall not be open for public inspection. If a request for confidentiality is refused, the person making the request will be allowed to withdraw the document in question.
6. Persons making written representations are invited to indicate whether they require an opportunity to make oral representations (and the estimated duration therefor, which duration shall not exceed 30 minutes). Persons making oral representations will do so at their own cost.
7. Oral representations will be heard from 10h00 on 7 and 8 December 1998 at SATRA, Block B, Pin Mill Farm, 164 Katherine Street, Sandton, Gauteng Province.
8. Before considering any document which SATRA has determined to be confidential and not open for public inspection, SATRA may direct that the public or any member/s or category thereof shall not be present at the hearing: Provided that before making such a directive SATRA will notify those present of its intention to do so, allow persons to object to such a directive and give due consideration to any objection made.

**H.N.L. MAEPA, Pr. Eng. P.E.  
CHAIRMAN, SATRA**

# **A Review of Application and Licence Fees in South Africa**

**October 1998**

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## **I. Introduction**

SATRA is undergoing a major review of its licensing fees and is investigating changes to the level and nature of fees that are associated with various licences, type approvals and applications that are filed with the Authority. In the context of this review, SATRA is determining the costs of processing applications and licences for telecommunications services, radio licences, and type approvals for telecommunications and radio devices.

The review includes investigation of a variety of information sources and information obtained locally and from other jurisdictions that have recently reviewed and revised their own licence fee regime. The topic has received considerable attention in other jurisdictions with various regulatory bodies at differing stages of investigating or implementing some form of auction for spectrum. Several jurisdictions including the United States, the UK and Australia have also recently reviewed other aspects of the licensing and licence fee regimes.

This report represents the culmination of those efforts and summarizes the research portion of this assignment. It is intended that this process will result in the prescription of new and revised fee schedules as provided for under Sections 88, 95 and 96 of the Act.

## **II. Current Fees and Licensing Arrangements**

The current structure of licence fees is assessed in a variety of ways. The fee structure for most "telecommunications" services is embodied in the Telkom licence.<sup>1</sup> Section 13.3 of that licence establishes that "on each anniversary of the Effective Date (of the licence, Telkom shall) pay to the Authority a licence fee equal to 0.1% of the Licensee's annual revenues generated from the provision of Public Switched Telecommunications Services ("PSTS")."<sup>2</sup> Telkom also pays an annual fee of R15 thousand (adjusted for inflation from the start of the licence) for its licence to provide Value-Added Network Services.<sup>3</sup> Telkom, also pays separate licence fees for the use of spectrum resources.<sup>4</sup> For the PSTS services provided by Telkom, approximately R17.5 million was generated in fiscal year 97/98.<sup>5</sup>

The cellular licences include a variety of separate fees. At present, there are currently two cellular licences and third or fourth licences are under review by SATRA. The two existing licences are structured to pay licence fees through three separate charges. First, there is a fixed charge of R100 million that each of

<sup>1</sup> Telkom has an exclusive licence to provide PSTS, long-distance, international long-distance, and pay phone services through 2002 with the potential to extend that arrangement for yet another year if certain conditions of the original licence are met.

<sup>2</sup> See Telkom Licence at 49. A figure of 0.1% of turnover is generally in the neighborhood of licence fees and regulatory charges imposed in many other jurisdictions. According to the National Regulatory Research Institute, state regulatory agencies in the US typically charge about 0.1%. Raymond Lawton 4/7/98. This fee does not, however, include the separate licence fees of the Federal Communications Commission, with whom the states share regulatory jurisdiction. Oftel is proposing to bill carriers at a rate of only 0.065% of turnover. Nigle Humberson, 4/7/98.

<sup>3</sup> See Telkom Licence, Section 11.3 at 148.

<sup>4</sup> Under Section 13.1 of the licence, Telkom has a 25 year term on the licence. The fee structure can change if the licensee agrees or the licence is revoked under the terms of condition in Section 12 of the Licence.

<sup>5</sup> Letter from Telkom to SATRA.

the carriers was required to pay, however, rather than paying in a lump sum, the licence permitted each of the carriers to pay an alternative amount structured over a five year period.<sup>6</sup> The two existing cellular providers are also required to pay 5% of their net operating income, and a fee for the radio frequencies that they use equal to R5 million fixed charge plus R20 thousand per 200 kHz frequency pair.<sup>7</sup> In 1997, the total of the telecommunications licence fee and the cellular net operating income fee from the two cellular licences was equal to approximately R133 million.<sup>8</sup>

Still other telecommunications service providers have yet another fee structure. Swiftnet was required to pay R500 thousand on the date that the licence was issued and only 1% of their net operating income. Swiftnet also pays for the spectrum resources through separate spectrum licence fees. The National Mobile Data Telecommunications Licence issued to Vula Mobile Data (PTY) LTD is similarly structured except that the initial fee due on the date of the licence was R1.5 million or was payable over a period of two years from the date

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<sup>6</sup> R10 million payable on the date of issue, R10 million payable on commercial date, and R22.3, R24.9, R27.8, and R31 million on each of the first four anniversaries of the commercial date of the licence. See, National Cellular Telecommunications Licence, Section 1.1 at 7.

<sup>7</sup> The combined fees are clearly high relative to the fees of the other telecommunications carriers in the RSA. The cellular frequencies and rights accorded to the two cellular carriers are clearly among the most valuable in South Africa and are established under long term licence arrangements in exchange for the rights and opportunities provided in the licence.

<sup>8</sup> Department Communications, *Annual Report*, 1997. The two existing cellular carriers are roughly 4 years into their 15 year licences. There is some interest among, at least one of the two existing carriers in restructuring the fees. The current regime may be affecting decisions related to the structure of at least one of the carriers.

of the licence. After the first two years of service, Vula is required to pay 2% of turnover.<sup>9</sup>

Spectrum fees vary by category of licence. As currently structured, most spectrum fees are nominal charges and appear to bear little relation even to the costs of issuing licences, let alone the costs of the regulatory services required to manage the spectrum resources or some estimate of that value. The use of these spectrum resources, is increasingly crowded in certain frequencies and geographic areas. Efficient use of this scarce resource by licensees is of increasing concern. Consequently, appropriate price signals can work in concert with other initiatives of SATRA to improve the management of the resource.

In certain areas, fees are not charged for the type approval. Clients applying for radio transmission equipment type approvals were cited here. These type approvals involve a considerable amount of staff time for processing.

### **III. Review of Licensing and Fees in Other Jurisdictions**

In the course of this study, a review was undertaken of recent policies, revisions, and activities in several different jurisdictions related to licensing fees and related activities. The jurisdictions reviewed comprise some of the largest telecommunications markets in the world. This included, the European Communities, United Kingdom, the United States, Australia, Canada, and New Zealand. In each of these jurisdictions, regulators have recently reviewed their current fee structures for licences and applications. Regulators in these countries are also at various stages of major efforts to auction portions of the

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<sup>9</sup> See, Vula Licence at Section 2.1, at 4 and 5.

spectrum resources. The United States is also reviewing the methods by which licence applications are reviewed and processed.

These jurisdictions typically differentiate licence fees into component parts. In the case of spectrum resources this typically involves the establishment of an application fee to recover the costs of processing applications, a frequency management fee to recover the costs of planning and managing the spectrum resources, and finally a value-based fee that is used as a mechanism for promoting efficient use of the scarce resource and for compensating the public for commercial use of a valued public good. Auctions are typically used to establish the sale value of the spectrum in situations and areas of the spectrum where the spectrum is known to have a large value. Otherwise value-based fees are typically based on an administrative determination of value.

Fixed-line telecommunications or common carrier services typically pay a fee based on the percentage of turnover. In certain instances, this may be accompanied by a fixed fee. The 0.1% fee on annual turnover assessed through the existing Telkom licence appears to fall well within the range of fees assessed on similarly situated carriers in the other jurisdictions reviewed.

Spectrum auctions are common in the markets reviewed. However, there were many approaches used in these auctions, with varying degrees of problems and successes.<sup>10</sup> Carefully planning the rules of the auction and learning from the success and failures of other auctions appears to be critical to

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<sup>10</sup> The typical problems cited range from high levels of defaults by successful bidders to valued pieces of spectrum selling for very low values.

future opportunities. Jurisdictions that have relied on the auctions have typically auctioned the spectrum for a period of 10 to 15 years, sometimes with an opportunity for renewal for a similar period.

#### a. European Communities

The European Communities has issued a Directive covering the licence and licence fee regime among its members.<sup>11</sup> Key provisions of that directive include the following:

##### Article 6

Without prejudice to financial contributions to the provision of universal service in accordance with Annex, Member States shall ensure that any fee imposed on undertakings as part of the authorisation procedures seek only to cover the administrative costs incurred in the issue, management, control and enforcement of the applicable general authorization scheme. Such fees shall be published in an appropriate and sufficiently detailed manner, so as to be readily accessible.

##### Article 11

1. Member States shall ensure that any fees imposed on undertakings as part of authorisation procedures seek only to cover the administrative costs incurred in the issue, management, control and enforcement of the applicable individual licences. The fees for an individual licence shall be proportionate to the work involved and be published in an appropriate and sufficiently detailed manner, so as to be readily accessible.

2. Notwithstanding paragraph 1, Member States may, where scarce resources are to be used, allow their national regulatory authorities to impose charges which reflect the need to ensure the optimal use of these resources. Those charges shall be non-discriminatory and take into account the need to foster the development of innovative services and

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<sup>11</sup> EC Licensing Directive ref 97/13/EC.



competition.

b. Great Britain – OFTEL

Telecommunications licences are issued by OFTEL and spectrum licences are overseen by the Radiocommunications Agency. With respect to the telecommunications licences, Great Britain currently has a two-part telecommunications licence fee regime. This reflects an "initial licence fee" that is only intended to reflect the administrative costs to both the Department of Trade and Industry (DTI) and OFTEL in examining and processing the application. In effect, this initial fee appears to be equivalent to a licence application fee except it only applies to those for which a licence is actually granted.

Second, there is an annual renewal fee. These fees broadly reflect the management and enforcement of the individual licences and generally appear to reflect the costs of providing the regulatory services that relate to the licence.

Third a supplemental fee is levied where the estimated costs to be incurred by OFTEL exceed the renewal fees for that year. In practice this third fee has only applied to the largest operators: BT, Mercury, Kingston, Cellnet and Vodafone.

Ofel completed a Consultative Document with proposed modifications to the licence fee regime in December of 1997.<sup>12</sup> This review was undertaken following the adoption of the European Community (EC) Licensing Directive (the Directive) (ref 97/13/EC). As indicated above, European Law requires

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<sup>12</sup> OFTEL, *A Review of Telecommunications Licence Fees in the UK*, December 1997.



objectivity, proportionality, non-discrimination and transparency in licence conditions.<sup>13</sup> Two modifications are proposed to the current structure. First, different groups of clients that are licenced are assessed fees in different ways. The Consultative Document proposes that the fees be assessed uniformly on the basis of turnover.<sup>14</sup> They conclude that there is a close relationship between turnover and the volume and complexity of regulatory work generated.<sup>15</sup> An alternative system based upon a unity time system was deemed impractical. The fee proposed is 0.065% of licensable business turnover.<sup>16</sup>

Second, it was proposed that all new licensees pay a fixed minimum renewal fee for the first two years of operation. OFTEL believes that the current system of charging some operators and not others what is viewed as a de minimus fee is contrary to the Directive's requirements for "proportionality, non-discrimination, transparency and objectivity."<sup>17</sup>

Finally, it was proposed that the "special fee" that applies in the current environment continue, but be assessed across providers for competitive neutrality. *Id.* at 9.

A separate study of spectrum pricing was conducted for the Radiocommunications Agency in the UK. The consultants have recommended a variety of value-based administrative or auction based approaches for pricing

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<sup>13</sup> *Id.* at 3.

<sup>14</sup> In proposing the use of turnover, OFTEL notes that it is important that the licence fees relate to the services provided under the licence. Goods and services that can be provided without a licence should therefore be excluded. *Id.* At 7.

<sup>15</sup> *Id.* at 6.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

spectrum resources in order to promote spectrum efficiency.<sup>18</sup>

c. Australian Communications Authority ("ACA")

The Australian Communications Authority (ACA) is a newly formed body established under the Telecommunications Act of 1997 and is responsible for regulating telecommunications and radiocommunications. The ACA's role is to oversee a new era in telecommunications, including promoting the greatest practicable use of industry self-regulation, and managing efficient and flexible access to and use of the radiofrequency spectrum. The ACA also has consumer responsibility for maximizing the overall public benefit to be derived from both radiocommunications and telecommunications.

For areas of spectrum resources of significant commercial value, the ACA relies on auctions. Based upon the relative success of personal communications system (PCS) auctions in the US, and the Spectrum Management Agency (SMA) in Australia, the ACA concluded that simultaneous ascending spectrum auctions is "fair, open and arguably the most efficient and effective market allocation system ever devised." The ACA plans to use this method for future auctions.

For most spectrum resources, the ACA currently imposes a three part fee. While referred to as an "apparatus licence fee", the licence issued effectively provides the holder with the right to use a specific segment of the radiofrequency spectrum for a particular purpose. They have structured the fee into three

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<sup>18</sup> See, NERA and Smith System Engineering Limited, *Study into the Use of Spectrum Pricing*, for the Radiocommunications Agency, April 1996.

components, (1) a spectrum access tax ("SAT"); (2) a maintenance component; and (3) and administrative component.<sup>19</sup>

The SAT is levied to provide a return to government for the use of a scarce and valuable community resource (i.e., the spectrum resource).<sup>20</sup> The Maintenance Component (MC) is designed to recover the indirect costs of ACA spectrum management related to international coordination, ITU membership, domestic planning, interference investigation and policy development.<sup>21</sup> The ACA allocates the costs "proportionately to individual licences" because these activities are of benefit to all licences.<sup>22</sup> An administrative component is intended only to recover the direct cost to the ACA of "licence management". This will include (1) a charge for issuing, (2), a charge for renewing, and (3) a charge for processing a fee installment.<sup>23</sup>

The ACA imposes an additional administrative charge of \$75 (Australian \$) for each chargeable spectrum access authorized by the licence. After 60 days, they attract a "new issue charge".<sup>24</sup>

Australia has recently opened its markets to competitive providers.<sup>25</sup> Telecommunications carriers are obligated to pay three fees. First, facilities-based carriers pay a fixed fee of \$10,000 (Australian \$) whether wireline or wireless carriers. Second, the carriers pay a fee on the basis of turnover. The largest carrier, Telstra pays the majority of costs here (approximately 80%).

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<sup>19</sup> Australian Communications Authority, *Apparatus Licence Fee Schedule*, 1997.

<sup>20</sup> *Id* at 2.

<sup>21</sup> *Id* at 3.

<sup>22</sup> *Id*.

<sup>23</sup> *Id*.

<sup>24</sup> *Id* at 58.

<sup>25</sup> In April of 1998, there were approximately 16 carriers. Personal communications with Greg

Finally, there is a universal service fund. Telstra is certified to provide universal services and other carriers pay into the fund.<sup>26</sup>

#### d. United States

Jurisdiction over telecommunications services is shared between the state regulatory commissions and the Federal Communications Commission ("FCC"). The FCC shares jurisdiction of radio spectrum management with the National Telecommunications Information Administration (NTIA). Both the state commissions and the FCC assess licence fees on telecommunications carriers. The FCC also establishes application and licence fees for spectrum resources. For spectrum resources with significant value, the FCC has relied on spectrum auctions.

The FCC has established a schedule of "application fees" that include not only the fee for a new licence, but fees for modifications, renewals, transfers, and temporary authorizations. Although not always the case, the same fees for each of these separate services usually apply for the simpler categories of licences. There is no fixed charge of less than \$45 (approximately R270).

The Commission is also authorized to collect "regulatory fees" to recover the costs of specified regulatory activities, including (1) enforcement, (2) policy, and (3) rulemaking activities, (4) user information services, and (5) international activities.<sup>27</sup> The collection of these fees is actually conditional upon Congressional Appropriations. Inter-exchange carriers and local exchange

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Neylen, Austel, 7/4/98.

<sup>26</sup> Id.

carriers (comprising most of the PSTS services) are charged a set fee per 1000 access lines. (This does not include the separate fees imposed by the state commissions.)

The spectrum regulatory fees do not apply to (1) government entities or nonprofit entities; or (2) to amateur radio operator licences under part 97 of the Commissions regulations.<sup>28</sup>

The FCC is in the process of establishing major changes to the licensing process. In a current proposed rulemaking, the FCC proposes to consolidate, revise, and streamline rules governing application procedures for radio licences as part of their 1998 biennial review of regulations.<sup>29</sup> Under the old system under review, the FCC system required eleven different data bases with duplicative information and a myriad of forms. The new Universal Licensing System now under development will replace the eleven databases with a single database, eliminated the need for clients to provide duplicate forms, and should increase the accuracy of information. It allows all wireless applicants and licensees for the first time to file all licence related applications electronically. The integrated nature of the information will enhance staff ability to obtain reliable information on ownership, affiliate interests, and competitive conditions in the marketplace. The public will be able to access the information over a World Wide Web browser.

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<sup>27</sup> 47 U.S.C. 159.

<sup>28</sup> 47 C.F.R. Part 97. While there is an obvious argument that fees paid from one agency to another is merely a transfer of taxpayers dollars, it will nevertheless provide an important discipline among agencies to either forfeit spectrum for private commercial uses, or encourage greater efficiency by the agencies that hold such frequency. The hoarding and inefficient use of scarce spectrum by public agencies is a common concern.

<sup>29</sup> WT Docket No. 98-20, Biennial Regulatory Review – Amendment of Parts 0, 1, 13, 22, 24, 26, 27, 80, 87, 90, 95, 97, and 101 of the Commission's Rules to Facilitate the Development and Use of the Universal Licensing System in the Wireless Telecommunications Services; NPRN, Rel.,

e. New Zealand

Spectrum Management in New Zealand is managed by the Radio Spectrum Management Group. The Radio Spectrum Management Group is part of the Operations and Risk Management Branch of the Ministry of Commerce.

The Ministry recently announced the successful use of an internet-based auction process for spectrum. In January of this year, thirty six bidders registered for 30 different lots. The auction was run on a multiple-round, ascending bid basis, and ran for 100 rounds before two consecutive clear rounds ended the auction simultaneously for all lots on offer. The auction included management rights for spectrum in the 26-28 GHz band, and specific licences suitable for VHF-FM radio and VHF/UHF television broadcasting services.<sup>30</sup>

f. Canada

Industry Canada is responsible for radio licensing and spectrum management. Canada has concluded, however, that the existing radio licence fee structure that is based strictly on radio apparatus does not deal adequately with innovations in the use of radio frequencies. In general, the new proposal appears to center on promoting more efficient use of spectrum resources. Canada is undertaking a thorough review of the licence fee structure. The new structure being proposed is a value-based scheme for assigning fees

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March 18, 1998.

<sup>30</sup> The Ministry auction software was developed during 1997 by Netlogic, a Wellington computer software company. The approximate cost of the software development and its subsequent use in the auction was \$30,000 and cost significantly less than previous methods of radio spectrum allocation.



administratively based on the amount of spectrum used and the scarcity of the spectrum in the area. At this stage, the actual fees have not been established, but the framework adopting a value-based approach has been put out for public comment.<sup>31</sup>

#### **IV. Conclusions**

##### **a. Application Fees**

We conclude that applications fees to cover the administrative costs of processing licence applications should be established. Current law, under Section 88(1), already provides for the establishment of such fees. The current structure has no fees for the actual application processing, only the licence fees once an application has been approved. However, the costs of processing licences are quite substantial and not all applicants actually receive licences. We conclude that licence application fees be established to properly compensate SATRA and ultimately taxpayers for the costs of processing applications. The payment of a fees may also discourage frivolous applications and encourage more care by applicants in actually filling in the form. Application fees should apply as a one-time fee for licences, certifications, registrations, and equipment type-approvals. One-time application fees for equipment should replace the annual fee structure currently in place. Radio equipment type approvals, in particular, have gone without either a renewal or application fee. Such

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<sup>31</sup> Industry Canada, *Consultation on Radio Licence Fees – Phase 1*, February 1996



equipment approvals impose a significant burden on SATRA and should be accompanied by a fee.

For situations in which the individual pays for the application and the initial licence with a personal cheque, SATRA should delay the issuance of licences to applicants until it has been verified that the cheque will be honored by the bank. Approximately 5-10% of the personal cheques written are not honored. In instances where these bad payments are made, the follow-up work by Collection and Tracing is considerable and is hampered by the fact that the applicant already has a licence in hand. Delaying payment upon verification would both avoid these costs and encourage individuals to pay with cash or a bank cheque.

With respect to the fees established for each licence, we conclude that the application fees themselves should generally be cost-based. Here, we conclude that a narrow definition of costs, reflecting only the direct or incremental costs of processing applications.<sup>32</sup> The application fee that is assessed would be on all licence applications and requests for apparatus "type-approvals." It would be a non-refundable amount intended to reflect the full costs to SATRA of processing these applications whether the applicant is successful in obtaining a licence or not.<sup>33</sup> We conclude that the definition of costs here be defined narrowly so as not to unduly discourage applications, only to cover the costs of

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<sup>32</sup> Stated differently, it is the costs that SATRA would avoid if the Authority were not charged with the responsibility of processing applications. We would include here, for example, overhead costs dedicated to the processing of applications that would be largely avoidable, if SATRA did not process applications. This would include, for example management directly involved in the supervision of staff involved in the processing of applications. It would also include the opportunity costs of senior management and the counsel time diverted from other responsibilities to address application processing concerns. Here, we simply use direct labor rates as a proxy of opportunity cost.

processing the applications and related costs for those that desire licences.

There appears to be general agreement among those interviewed, including both clients and staff, that cost-based fees are appropriate.

Application fees should also apply to circumstances in which modifications (including licence transfers) are being requested of a given licence. In general, we conclude that there is no substantially different work involved and that licence modifications should be accompanied with a fee to compensate the public for these costs and to encourage clients to submit modifications in an efficient manner. We do not conclude that licence cancellation fees should apply or that fees should apply to minor modifications involving postal address changes.<sup>34</sup>

Applications fees should be adjusted periodically to reflect significant changes in the cost of processing applications or in response to expected changes in nominal costs reflected in the Consumer Price Index.<sup>35</sup>

#### **b. Telecommunications Regulatory Fees and Spectrum Management Fees**

Third, we conclude that a separate regulatory fee should be established to cover the full costs of regulatory services (excluding the costs of processing applications) for the relevant telecommunications and radio frequency markets

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<sup>34</sup> In the first place, such a fee would discourage clients from freeing up spectrum until the end of the year. Interview with Collection and Tracing, 6/3/98. The administration of such fees could also be problematic, since SATRA would lose the leverage of the licence certification as a means for encouraging payment.

<sup>35</sup> An annual adjustment to the application and spectrum fees is appropriate in order to capture the full "real" cost of licences and applications. In the face of inflation, maintaining nominal costs without adjustment effectively reduces the real costs of regulatory services that the fees are intended to recapture.

that are regulated by SATRA. Fees should be set to ensure that the costs of regulatory services provided by the Authority are covered through fees. The services that SATRA provides to the industry are services that are central to the efficient functioning of the industry. Efficient management of spectrum resources, for example, requires funding sufficient to ensure the equipment and resources necessary to minimize the potential for interference among competing uses of spectrum resources. Recent cuts to the SATRA budget have compromised the ability of SATRA to serve its client needs.

Telecommunications licence fees are best viewed as fees to cover the costs of telecommunications regulation and spectrum licence fees, as a fees to cover the costs of spectrum management. The intent here would be to recover from the regulated carriers the full costs to government and taxpayers of telecommunications and spectrum regulation. We conclude this for several reasons. In general terms, we conclude that it is simply fair to recover regulatory and management service costs from those that cause the costs (or the need for the costs) and also profit from the industry. Providers will then pay directly, and, to the extent that they are able to pass fees along to consumers, the consumer public that also benefits from those services may pay those costs.

There is also an economic efficiency rationale for establishing a cost basis for the licences issued by the Authority. We conclude that the regulatory licence fees, should, at a minimum be cost based to reflect the full burden of providing regulated telecommunications services. Prices and production costs that reflect those costs will send appropriate signals to consumers and suppliers,

which, in turn, should encourage providers and consumers to properly *allocate* or *ration* their purchases and production of telecommunications resources.

Also, to the extent that the South Africa joins other jurisdictions with *independent* regulatory bodies that are funded directly by the industries they regulate (i.e., through licence fees or dedicated regulatory charges), a cost-based fee regime provides a mechanism for funding the regulatory authority (i.e., SATRA) and for ensuring that the regulatory authority exercise appropriate budget discipline. This is, however, a separate issue outside the scope the exercise at hand.

The term of existing licences for PSTS, cellular, and data services complicate the exercise. We conclude that, in the future, licence fees should be structured to recover the costs of regulatory services as a separate component of the licensing fee or as a set amount of existing revenues generated by those licences. Any efforts to restructure licence fees within the framework of existing licences should reflect an effort to recover the costs of regulation in the licensing fees.

Licence or renewal fees, however, should not be less than the cost of processing the renewal. The costs of renewals can vary significantly among the licence holders. We conclude that the renewal fees for spectrum licences should be no less than R100 so that, at a minimum, the costs of processing the renewal are covered by the fee. In extreme circumstances, the costs of processing even a renewal licence for spectrum can be an order of magnitude greater than existing fees. This would include multiple notices to clients followed by the

physical field dispatch of staff to either collect payment or seal equipment.

Higher minimum charges will help recover these additional costs when combined with the other interest and penalty provisions suggested here. As discussed further below, appropriate interest charges and penalties for late payment should be established to encourage prompt treatment and to lessen the processing burden on SATRA and the public that must ultimately bear the burden of the added costs imposed by delinquent licence holders.

As with spectrum applications fees, we conclude that spectrum licence fees be adjusted periodically to reflect significant changes in the cost of managing spectrum resources or in response to expected changes in nominal costs reflected in the Consumer Price Index.<sup>36</sup>

In the current environment, spectrum licence renewal fees are all due on January 31 of each year. However, the existence of a single due date may create an undue administrative burden on SATRA. We conclude, therefore that the payment due dates for renewal charges should be distributed over a 12 month period.

#### e. Interest Charges and Penalties

A large share of the licence renewal fees is not paid on time. In addition, approximately 5-10% of the payments are made with personal cheques that are not honored by the bank. Under current arrangements there is an incentive for

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<sup>36</sup> Obviously such fee adjustments would not be necessary for categories of licence fees that are based on a proportion of turnover or NOI. Growth and inflation are effectively already built into the fee structure.

customers to delay payment; clients can earn a return on the money or put it to alternative use during the period in which the payment has not been collected by SATRA. Indeed, from the period in which the payment is due, the money should be earning a return for the benefit of South African taxpayers or put to an alternative valued use. Late payment deprives taxpayers that benefit. Certain minor additional costs may be incurred by SATRA during the early stages of late payment, including customer notices. This argues for the establishment of a finance charge on the late payment of licence fees. This would also apply to applications fees, modifications, and/or cancellations, but should generally not be a problem if those events require pre-payment as suggested in this report. We conclude that the fee should be set at the short-term commercial lending rate available to SATRA.

At some stage, however, the costs to SATRA may involve a significant expenditure of time and resources to ensure compliance. We conclude that fees more than three months overdue, should be required to pay a one-time threshold penalty of 25% on the amount of the initial licence fee due. Finance or interest charges would then accrue on the entire cumulative amount due.

Additionally, we conclude that payments made by cheque that are not honored by the bank be required to pay SATRA an additional penalty charge to cover the incremental costs of processing the payment by SATRA.<sup>37</sup> Such a fee should be structured to either encourage customers to provide a valid personal cheque or to make payment with cash or a bank cheque.

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<sup>37</sup> We conclude a fee of R25 is appropriate, as is typical of many commercial banking institutions.



Each application should be accompanied with a payment and not be processed unless the actual payment has been honored by the bank. Applications that are not accompanied with a payment of an application fee or for which the cheques are not honored should be returned. Customer's should be notified of this risk before filing an application. The potential for such additional delay, may further increase client incentives to provide payment in cash, through a bank cheque, or to ensure that adequate funds exist in the bank account to cover the personal cheque.

In situations where customers repeatedly abuse the process by paying late, other strategies for encouraging responsible behavior should be considered. This could include year-ahead advance payments or deposits, escalating financial penalties, or even licence suspensions.

The issue of fee payment was identified early in our investigation as a problem area. Major resource commitments must be made in the field to either ensure payment of licence fees or to seal equipment and follow up on such licensees that fail to pay fees or otherwise violate the terms of their licence. We conclude that a regime of penalties for late payment be established to ensure prompt compliance with the regime of licence fees and renewal fees that are being proposed here.

#### f. Spectrum Resources

Fourth, we conclude that the spectrum resources be allocated to consumers on a value-basis. Spectrum resources in South Africa are a scarce



public resource. Value-based pricing of a public good performs several important functions. First, and most importantly, it encourages efficient use of the resource. Second, it can provide a transparent and objective basis for allocating the resource among consumers. In certain circumstances, such as when especially valuable frequencies (currently frequencies used to provide paging and cellular services), auctioning should be considered. This seems especially relevant in the assignment of licences where third parties are requesting the licence to provide services to the public for a profit.

In general, consumers (and third-party commercial providers) that place the greatest value on the resource (i.e., generally those that can be expected to either use it most efficiently or maximize its commercial value to the benefit of consumers) will pay a value-based rate. For exclusive frequencies, this may be a rate above what all other service providers are willing to pay. Finally, it provides a mechanism for compensating the public for the resource that has been rented out to consumers or service providers.

An analysis of the fees that would correspond to those value-based determinations was not developed here. We conclude that SATRA should move quickly to establish a program for investigating alternatives for establishing such value-based fees. It may be important to distinguish the role of the frequency management fees proposed earlier from a value-based spectrum fee. The former is intended to compensate SATRA and ultimately taxpayers for the costs of SATRA's provision of the management services it provides. The latter is intended to compensate the public for the use of the scarce resource. In both

cases, fee design issues are involved that could be used to complement efforts to manage the resources (i.e., including efforts by SATRA to encourage efficient use of the resource). A value-based component to the fee structure may only be appropriate in congested areas or areas that can reasonably be expected to become congested in the near-future. The frequency management fee structure may appropriately be designed geographically to load more of the regulatory costs on client services in congested areas.

The process for establishing value-based spectrum fees or charges can involve a range of approaches as divergent as auctions and a variety of administrative approaches. At this stage, we do not conclude that SATRA should limit its consideration of these mechanisms to either administrative mechanisms or auctions. This investigation should include review of potential trading of such licences outside the direct supervision of SATRA.

Programs centered on addressing the concerns of Historically Disadvantaged Individuals ("HDI) or other public and/social program initiatives can be addressed as conditions to the licences that are issued. Concerns associated with hoarding or anti-competitive practices can also be incorporated as licence requirements or conditions to preserve SATRA's regulatory responsibilities to the public. We conclude that either approach can accommodate a broad range of accompanying licence conditions that advance the various policies of SATRA, to properly manage the resource, or South Africa to advance various social and policy initiatives connected with historically disadvantaged individuals.

#### g. Comparability and Fee Schedule Proposal

The current fee structure for most telecommunications services including PSTS, long distance, international long distance and cellular services is determined under the terms of negotiated arrangements in the current licences. As the RSA moves toward open markets it will become increasingly important for the licence fee arrangements in those licences to be comparable. It is suggested that this comparability be both in the form and proportional to the level of the regulatory fees that are assessed. Such comparability will help ensure that fairness and the perception of fairness in establishing fees is adhered to by SATRA.

Comparability, however, should not be confused with sameness. The telecommunications industry is certainly one of the most dynamic industries in South Africa. The value of spectrum resources is constantly in flux. Developments in the capabilities of the technologies themselves have a major impact on the value of these resources.

It is recognized, however, that in the short run, strategic and policy commitments may have a greater priority to consumers and the public than competitive comparability. Public service commitments including universal and community service obligations can serve to replace licence fees or portions of licence fees.

We conclude by offering that the cost-based schedule of fees proposed separately should apply. The fees would increase uniformly based on our

estimates of costs. The application fees we propose, along with the renewal fees and fees for licence modifications are, generally, new fees and charges. While there are strong arguments for simplicity in the design of fees, we conclude that there is also an important efficiency rationale for permitting more complexity in the fee structure in the more congested areas.

#### h. Transition Issues

Certain transitional issues naturally arise in consideration of the issues that are addressed in this report. Most telecommunications services already have established long-term licence and licence fee arrangements embedding in the terms and conditions of the licence. Unless the licence provisions are reopened, the conclusions and directions offered here will only affect them indirectly (that is, through competitors that face different fees or structures). In the framework of the current environment with legal barriers to entry and fairly clear distinctions between markets, the disparate nature of fees presents few problems. Over time, in the face of converging services and technologies, competitive concerns may require South Africa to work toward a common framework.

#### i. Rate Design of Regulatory Fees

At this stage, fees are assessed with considerable variability. Fees currently include (1) a fixed annual licence fee [e.g., most spectrum licences], (2) an initial fixed charge at the beginning of long term licence commitments [e.g., as

one of several licence fees assessed to cellular and mobile data licenced providers], (3) as a percentage of turnover or "gross operating revenue" [e.g., Telkom and Vula Mobile Data], or (4) as a percentage of net operating income [e.g., the existing cellular licences and that of Swiftnet].

In a predominately monopoly industry and with clear separation between telecommunications markets, these disparate approaches to assessing fees presents few problems for either the providers or consumers. As technology developments and the legal impediments to entry subside, however, these differences can effectively determine competitive outcomes. Even in the framework of the current monopoly environment, the fee structure can introduce distortions that affect efficient operations of the carriers that are regulated by SATRA. Over time, we conclude, that SATRA should work toward establishing a common framework and assess fees in a competitively neutral fashion. Regulatory fees should generally be established in a manner that both recognizes the relative regulatory burden imposed by different classes of providers and the need for comparability, both in the magnitude and the form of the fees.<sup>38</sup>

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<sup>38</sup> As noted previously, our conclusion that fees be assessed in a competitively neutral fashion should not be confused with suggesting that all fees, be they regulatory or spectrum fees, be the same across providers. Differing types of providers and different services may impose different regulatory burdens. We conclude that such burdens generally be reflected in the licence fees assigned to those providers. We conclude, however, that the regulatory fees established for providers in the same market be similar both in size and nature. With the ever increasing convergence of technologies and markets, this argues for the size and nature of fees to be similar over time. The current length of existing licences for the PSTS services and Cellular licences, obviously complicates practical implementation.

However, we do not conclude, that fees be the same or similar where scarce spectrum resources are involved. Different areas of spectrum have different characteristics and different associated market and technology opportunities. The value of these spectrum resources will also vary with time. Technology developments, information about market opportunities, and evolving consumer demands will affect investor perceptions of spectrum value. For such resources, comparability can be promoted by providing different participants with comparable access to the spectrum resources through auctions, competitive negotiations, or administrative pricing mechanisms.

We conclude that application fees should generally be filed with the applications for spectrum licences and contested licences such as licences for new cellular providers. We conclude that the large incremental costs of major licences be recovered as a fixed charge to successful licensees or recovered over a few years with interest costs as appropriate. Application fees for such major licences should be set to recover the costs of processing licences and extraordinary expenses associated with the applications process, including one-time costs of outside consulting resources required to process a large volume of licences. Fees for such application processing should vary substantially according to the complexity of the issues and should be set on a case specific basis. For major licences, such as the data mobile and cellular licences, each licence will carry with it unique issues that argue for fee determinations on a case specific basis. We conclude that competitive negotiations with potential service



providers or other competitively neutral basis for determining fees be used in establishing an appropriate level for the fees.

This approach to establishing licence fees appears to be consistent with the structure of many of the current cellular and mobile data licences. However, our conclusions suggest that some restructuring of the fees for future licences may be appropriate so that value-based fees can be easily separated from cost-based management and regulatory fees.

Finally, we conclude that charges be generally based on jurisdictional turnover.<sup>39</sup> Jurisdictional turnover presents the advantage of simplicity over the current net operating income approach that applies to the first two cellular licensees. It is also an approach that is common used on other jurisdictions. The turnover approach suffers from the potential for double counting (double payment of fees on the same resources used for both wholesale and retail sales by different providers) but may present fewer problems in other respects.

Services that depend on transactions between multiple providers (such as those associated with interconnection services), or competitive providers that depend on incumbent providers for core telecommunications services, will need to pay the licence fees on the basis of their retail revenues set at price levels, presumably, to include their costs of wholesale services. The price of the wholesale services, however, will likely include the costs of the wholesale portion of the licence fees. In effect, certain services will be double counted for purpose of the fee assessment.<sup>40</sup> This will typically create a differential cost burden for

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<sup>39</sup> That is gross revenues associated with licensed telecommunications services.

<sup>40</sup> Even if carriers are not permitted to pass these cost through, wholesale charges to competitors,



such carriers and will, other things being equal, create an undue incentive for carriers to self provision services in order to avoid these costs. So long as the fees are kept low, this concern may not be a significant.

Fees based on a proportion of net operation income ("NOI") seemingly addresses such concerns, but at the cost of simplicity and they may introduce other distortions. NOI typically excludes interconnection charges from calculation of the base for the fee. Here, there would seem to be a countervailing incentive to create or maintain separate subsidiaries where an integrated entity may be warranted.<sup>41</sup> The added complexity of the NOI calculation may also introduce additional auditing requirements by SATRA to detect any potential for gaming rules and definitions.

Establishing fees on the basis of retail revenues seemingly addresses both such potential distortions. Arguably, one still faces the sometimes difficult and arbitrary challenge of differentiating wholesale and retail transactions. This may be particularly challenging if one classifies VANs providers as wholesale and other businesses, providing seemingly similar services but maybe less dependent on the fixed wireline network, as retail providers. We conclude that establishing fees based upon retail revenues could provide a viable alternative to fees based on turnover. This could, however, be problematic when one considers that the retail operations of certain markets (e.g., service providers in the market for Cellular services) are not currently licensed by SATRA. The

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these carriers will still need to pay the fees. This in turn would provide them with a strong incentive to avoid provision of wholesale services.

<sup>41</sup> This is not, however, to argue that integrated operations is desirable from the standpoint of the consumer or competition. Structural separation promotes transparent interactions among affiliates and thus the ability of the regulator to protect against anti-competitive activities between

current separation of pre-existing facilities-based providers with fees embedded in their existing licence and retail competitive service providers that exist within the current cellular industry presents a further complication as a transition issue for assessing fees at the retail level.

One could also substitute a single up-front payment for a portion of the fee. Spectrum sold in other jurisdictions often require an up-front payment in place of an ongoing annual fee for the use of the spectrum resource. While we conclude that the telecommunications regulatory fees and spectrum management fees be cost-based, we also conclude that the spectrum management fees be differentiated to reflect differences in value. That is, in areas where certain frequencies are already congested, the spectrum management fees may appropriately be set higher than for corresponding frequencies in geographic areas where the resource is underutilized. For areas of spectrum with considerable commercial potential, this will likely include fees well in excess of costs. This type of rate design can serve as a complement to the efficient pricing of spectrum through additional value-based fees, to the extent necessary.

As indicated earlier, high value-based spectrum fees should be used as a spectrum management tool to encourage efficient use of the resource in areas where congestion is present or is reasonably foreseeable within an area. Fee structures can also be used to discourage hoarding and anti-competitive practices; issues that should also be addressed as conditions on the licence. Even where a spectrum component of the fee structure is not necessary, prudent

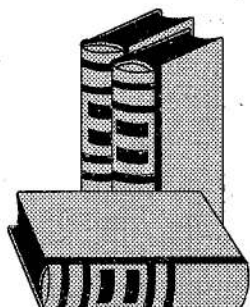
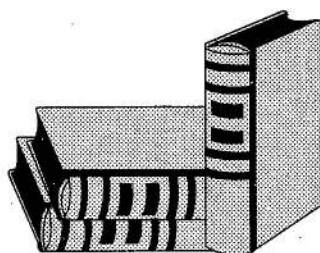
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regulated common carriers and their competitive affiliates.

rate design of the frequency management fees argues for higher fees within congested frequencies and geographical areas, and lower fees in areas where the resource is underutilized, presumably in the remote regions of the RSA.

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