



Government Gazette Staatskoerant

REPUBLIC OF SOUTH AFRICA

Vol. 426 Pretoria, 22 December 2000/22 Desember 2000
No. 21925



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CONTENTS

No.	Page No.	Gazette No.
GENERAL NOTICE		
Independent Communications Authority of South Africa		
<i>General Notice</i>		
4715 Telecommunications Act (1 03/1 996): Notice in respect of a review of fees and charges in the public switched telecommunications sector	2	21925

GENERAL NOTICE

NOTICE 4715 OF 2000



INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

NOTICE IN RESPECT OF A REVIEW OF FEES AND CHARGES IN THE PUBLIC SWITCHED TELECOMMUNICATIONS SECTOR.

1. Notice is hereby given that the Independent Communications Authority of South Africa (ICASA) intends to conduct an enquiry under Section 27 of the Telecommunications Act, 1996 (Act 103 of 1996) to review fees and charges in the Public Switched Telecommunications Network sector.
2. The relevant topics on which the review is contemplated are published herewith.
3. Interested persons are hereby invited to submit written comments on or representations with regard to the consultation document, to be received by no later than 16H00 on 31 **January 2001** by post or hand delivery preferably with a soft copy on MicrosoftWord 97 or higher, for the attention of Mr Peter Hlapolosa, ICASA, Private Bag XI, Marlboro,

2063, Block A, Pin Mill Farm, 164 Katherine Street, Sandton; e-mail peterh@satra.gov.za.

4. All representations and documents lodged with ICASA pursuant to this notice shall be open for public inspection by interested parties during the normal office hours of ICASA.
5. Representations and documents that ICASA 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 for requesting confidentiality. ICASA 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 would like an opportunity to make oral representations.

MANDLA LANGA

CHAIRPERSON

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

TABLE OF CONTENTS

Index	Page
Notice in respect of a review of Fees and Charges in the PSTN Sector	3
1. Introduction	5
2. Sec 45 and Telkom Licence Procedure for amending Rate Regime	6
3. Legislative and Policy considerations	8
4. Current Rate Regime	12
5. Price Movement Under the Control	13
6. Telkom's Financial Results	15
7. International Price Comparisons	17
8. The need for and coverage of price controls	20
9. Efficiency	22
10. Quality of Service	24
11. Cost of capital	26
12. The form of price cap	29
13. The setting of price controls	32
14. Impact on customers	37
15. Conclusion	43
Annexures	46

REVIEW OF RATE REGIME FOR PUBLIC SWITCHED TELECOMMUNICATION SERVICES

CONSULTATION DOCUMENT

1. introduction

1.1. On 7 May 2000 the South Africa Telecommunications Regulatory Authority (SATRA) became responsible for the regulatory regime governing the prices charged by Telkom SA for public switched telecommunication services in South Africa. Before that date, the government set the rules and the regulator was responsible for ensuring compliance with the price control regime. These rules are contained in the licence issued to Telkom on 7 May 1997 and in the Ministerial Directive on Fees and Charges for Telecommunications Services (Notice 772 of 1997, 7 May 1997).

1.2. The Independent Communications Authority of South Africa (ICASA), which has succeeded SATRA, is publishing this document as a first step in reviewing the price control rules. We invite public comment on the proposals contained herein.

Competition and Privatisation

1.3. Much has changed since the Telkom licence and the Ministerial Directive on Fees and Charges were issued in 1997. The two mobile operators, Vodacom and Telephony Networks (MTN) have extended their networks across the country and their market has grown rapidly. Between them they now have some 6.9 million customers, compared with some 5.5 million customers for Telkom's network.¹ There are therefore now slightly more customers of mobile services than of fixed services in South Africa.

1.4. According to the South African government's commitment to the World Trade Organisation (WTO) on telecommunications, the country will introduce competition in the PSTN area through the licensing of the second network operator (SNO) by no later than 31 December 2003.

¹ Page 12 of Telkom's Annual Report of 1999/2000; MTN and Vodacom reports for Apr. 00- Sept. 00

Changing technology

1.5. Meanwhile, the nature of the telecommunications business is itself subject to rapid change. The extraordinarily fast development of the Internet, which now has some 1.8 million customers in South Africa², has fuelled an unprecedented growth in data traffic and an explosion in telecommunications services applications. In many countries Internet Protocol (IP) networks, deploying fast packet switching technologies, are threatening to supplant conventional switched networks. In South Africa, **Telkom** is completing the conversion of its network to modern digital switching, but it is already planning the deployment of Asymmetric Digital Subscriber Lines (**ADSL**) to carry the new **IP** services to final users.

Timing of the Review

1.6. This review of the Rate Regime therefore comes at a time when the structure and technology of the industry is facing rapid change. Any amendments to the Rate Regime to which **Telkom** is subject need to take this into account. Such amendments must take note of the proposed privatisation of the company, the introduction of future competition and the impact of changes in tariffs on consumers.

2. **Sec 45 and Telkom Licence Procedure for amending Rate Regime**

2.1. The procedure for amending the current Rate Regime is laid down in Sections **45 and 96** of the Telecommunications Act of 1996 and in Condition 7 of the **Telkom** licence.

2.2. Section 45 (2) of the Act provides that the manner of determining fees and charges shall be prescribed only in respect of fields where no or insufficient competition exists. It further provides that the Minister shall determine such fees and charges in respect of **Telkom** until the third anniversary of the date on which the Minister issued a license to **Telkom**.

2.3 The provisions of any amended Rate Regime are to be included in regulations made by **ICASA** under section 96 of the Telecommunications Act 1996. These provisions require the Authority to publish in the *Government Gazette*, at **least** three months before any

²4th Annual **MediaAfrica.com** survey

regulation is made, the text of the proposed regulation and a notice declaring its intention to make that regulation. During the period of three months all interested parties will have an opportunity to comment or make representations on the proposed regulations. The regulations then have to be approved and published in the Gazette by the Minister, under section 96(6) of the Act.

Consultation programme

- 2.4 In accordance with these provisions, and in order to ensure wide public participation in the process, ICASA is proposing two stages to the consultation.
- 2.5 ICASA is publishing this consultative document, following informal discussions with a number of interested parties, and is inviting anyone with an interest to comment in writing to ICASA on any issues arising from the document.
- 2.6 After considering all submissions, ICASA will publish draft regulations under the Section 96 procedure outlined above. Interested parties will have a further opportunity to make representations on the proposed regulations should they so wish.
- 2.7 This means that all interested parties will have two opportunities formally to influence the outcome of the review.
- 2.8 After publication of the draft regulations, ICASA will take the written submissions received into consideration in coming up with the final regulations. The final regulations will be forwarded to the Minister for approval and publication in the Government Gazette.

PROPOSED TIME FRAMES

	DUE DATE
Publish Discussion Paper	22 December 2000
Written Submissions Due	31 January 2001
Hearings	22& 23 February 2001
Publish Draft Regulations	22 March 2001
Publish Final Regulations	28 July 2001

3. Legislative and Policy considerations

Telecommunications Act (No. 103 of 1996)

- 3.1 Section 2 of the Telecommunications Act of 1996 lists the objectives of the Authority with regard to the regulation of the sector. In developing a proposed rate regime, ICASA will consider these 17 objectives.

1996 White Paper on Telecommunications Policy

- 3.2 The government's policy for the development of telecommunications in South Africa was set out in the White Paper on Telecommunications Policy published by the Ministry for Posts, Telecommunications and Broadcasting in March 1996 (the White Paper). Chapter six of that White Paper³ sets out the approach of the government to meeting the requirements of affordability of telecommunication services in order to achieve adequate universal access and service goals for telecommunications.

The Ministry saw the need to create a balance between affordability and the needs of the operator to expand and upgrade its network. It therefore favoured:

- 3.2.1 the application of a price cap mechanism for the regulation of telecommunications prices.
- 3.2.2 the progressive elimination of cross-subsidies, except where these were reconcilable with competition or were required for the purpose of attaining specified social objectives. These cross-subsidies were to be phased out during the period of Telkom's monopoly of voice and public network transmission services, up to May 2002.

Policy balance

- 3.3 Government policy has therefore addressed the need to prepare for network competition from May 2002, by bringing prices more closely into line with costs and by seeking to improve efficiency. Secondly, the policy addresses the need to expand the public switched network, mainly for the benefit of previously disadvantaged areas, and to improve the quality of the services provided over the network.

³Chapter 6 of the White Paper, Annex 1

- 3.4 To this end, **Telkom** has been given a target to install 2.69 million working telephone lines (i.e. to actual customers) by May 2002 and has also been required to meet quality of service targets laid down in its licence.

Policy Direction Number One

- 3.5 In implementing this policy, the Minister for Posts, Telecommunications and Broadcasting issued Policy Direction Number One on Fees and Charges for Telecommunication Services (Notice 773, 7 May 1997). This direction, which became effective on the date of issue of the **Telkom** licence, provides that:

- 3.5.1 the fees and charges of **Telkom** that are subject to the Rate Regime shall continue to be regulated in accordance with a price cap formula.
- 3.5.2 **Telkom** may rebalance such fees and charges in accordance with the Ministerial determination on fees and charges (Notice 772, 7 May 1997).
- 3.5.3 any Rate Regime to which **Telkom** may be subject during the Exclusivity Period shall not have a materially adverse impact on **Telkom**.
- 3.5.4 any rate regime shall not have an adverse effect on **Telkom's** ability to fulfil its obligations under the licence, including the achievement of the Roll-out Targets and the new line Roll-out Targets, as these are defined in the licence.

- 3.6 In carrying out its review of the Rate Regime, **ICASA** is clearly bound by these policy requirements,

Views of ICASA

- 3.7 **ICASA** fully supports the broad framework of government policy for the telecommunications sector. It agrees that a balance has to be struck between the objectives of promoting affordability of services and extending services as widely as possible. **ICASA** also fully accepts the requirement for price cap regulation and rebalancing of prices to remove cross subsidy before competition becomes fully effective.

Price cap regulation

3.8 Price cap regulation has been widely adopted internationally because it has been shown to meet a number of important objectives, in fact, most of the SADC countries use this approach in regulating prices for telecommunication services. It meets objectives in the following ways:

3.8.1 by setting a target for the reduction of average prices of telecommunications services each year, by a set amount below the rate of inflation, price cap regulation creates strong incentives for the management of the company to achieve greater efficiency. This arises from the fact that, if it does better than the target, the company will be able to keep the extra profit generated.

3.8.2 customers receive the assurance that the monopoly operator will not be able to raise the general level of **prices** and will be required to share the benefits of improved efficiency with them in the form of lower prices.

Price rebalancing

3.9 The prices of telecommunications services in many countries have in the past borne little relationship to costs. South Africa has been no different in this respect. This has been due to various factors:

3.9.1 monopoly operators did not need to take much account of costs of individual services, so long as they could recover their overall costs from total revenue.

3.9.2 the costs of providing services have been changing. Long distance services have become far cheaper to provide, becoming increasingly distance independent, and to a degree often not widely understood. The cost of setting up calls, in a switched environment, has become a major element in the overall cost of the call. **Call** set-up costs relate to the costs incurred in linking the caller to the called party even before the call is answered.

3.9.3 Prices have been influenced by social and political pressure to minimise prices to residential customers and to look to the customers of long distance services, predominantly business customers, to subsidise other customers. South Africa has been no different in this respect.

3.10 However, as part of the telecommunications reform process, the rebalancing of prices, to bring them more closely into line with costs, has become the international norm in telecommunications. This is partly because experience has shown that there are strong economic welfare benefits from ensuring that those purchasing goods or services meet the costs of providing them. Failure to do this tends to result in economic distortions and the misallocation of resources, (Resources that are under-priced are over-used and resources that are over-priced are under-used.)

3.11 There is also the practical reason that competition tends to drive prices towards costs. It is therefore highly desirable to achieve a large measure of rebalancing before competition becomes effective. If this is not done, there are likely to be disruptive effects to market development. Pricing significantly below cost by the incumbent monopolist will hinder market entry and the development of competition. Pricing significantly above cost will enable new competitors, even though they are actually less efficient than the incumbent, to undercut the incumbent's prices in some market sectors. This form of "inefficient" market entry can be disruptive and expensive in the longer term.

3.12. Either way, the benefits of competition, typically including greater efficiency, lower prices, faster innovation and increased responsiveness to the requirements of customers may be lost or delayed.

Purpose of the Review

3.13 Nonetheless, while accepting the policy objectives underlying the current Rate Regime, ICASA considers it opportune, three years after the inception of the regime, to review it in order to assess how successful it has been in achieving those objectives and whether it can be improved.

Q1

ICASA would welcome general comments on the overall regime including alternative approaches to price control other than price cap.

4. Current Rate Regime

4.1 The current Rate Regime, to which Telkom's prices for public switched telecommunication services are subject, is laid down in the Ministerial Determination on Fees and Charges for Telecommunication Services of 1997 (Notice 772, 7 May 1997). This determination provides, in essence, that the average prices charged for a specified basket of services shall be reduced each year by 1.5% after taking account of inflation. The rate of inflation is calculated with reference to the Consumer Price Index (CPI). This type of formula is often referred to as "CPI-X", where X is the target rate of reduction (in the case of the current regime, 1.5% per year).

4.2 The basket of services is, briefly, defined to include:

installation of exchange lines and other types of service subject to control;

rental for the provision and maintenance of exchange lines and other types of controlled services;

call services for local, long distance and international calls;

calls from public pay telephones;

calls over non-voice switched telematic services;

directory information services; and

telephone operator services.

The prices of all other services provided by Telkom are excluded from control.

4.3 The calculation of the overall average price of the controlled services is by a weighted average. The weights are the amount of revenue from each of the services during the previous year. The value of the CPI to be applied each year is derived from a forecast of CPI for the year in question.

5. **Price Movement Under the Control**

5.1 Table 1, below, summarises how prices of the main controlled services have moved over the last three years, since the Rate Regime was introduced.

Table1: Summary of Price Changes Controlled by Licence Condition 1998-2000					
	Jan-98	Jan-99	Jan-00	[Cumulative Price Change	Deflated by CPI
	%	%	%	%	0/0
Change in CPI in base period	5.6	8.9	2.6	-	
Forecast CPI used by Telkom	6.6	8.8	3.5		
CPI - Productivity factor	1.5	1.5	1.5		
Permitted increase	5.1	7.3	2		
Change in effective price of exchange line rentals:					
Residential	12	11	3	28	10
Business	15	13	4.2	35.4	17.4
Change in effective price of calls:					
Local (0- 50km)					
Standard	25.6	10.7	10.5	53.6	35.6
Callmore ⁴	0	16	10.9	28.6	10.6
National (50-100 km)					
Standard	0	9.8	0.9	10.8	-7.2
Callmore	0	10.7	1.7		-5.4
National (>100km)					
Standard	-8.5	1.8	0.2	-6.7	-24.7
Callmore	-4.7	7.6	-0.4	2.1	-15.9
International					
Standard	-5.4	-7.5	-11.6	-22.6	40.6
Callmore	-11.5	-4.8	-6.7	-21.4	39.4
Megaline C Tariff					
2 Mbit./s link	25.5	24.6	22.9	92.2	74.2

Source: Telkom; ICASA

⁴ Standard and Callmore equate to Peak and Off-peak respectively.

Calculation of Cumulative Price Change

January 1997 is taken as the base period in the calculation of the figures in Table 1 above. While the annual increases reflect the year-on-year percentage increases, the cumulative price change reflects the compound increase over the three-year period on the base year figures.

- 5.2 As can be seen, there has been significant increases in the price of local calls. These have gone up, over the three-year period, in real terms (i.e. after allowing for inflation), by just over a third (**35.6%**) at standard rate; and by **10%** at **callmore** rate. At the same time, there have been parallel increases in residential rentals (10% in real terms) and business rentals (13% in real terms). These increases have been slightly more than offset by decreases in the price of long distance and international calls. However, the significance of the decreases to individual customers will have depended on how frequently they used the services concerned. For the lower income customers who do not make many national calls, increases have been far higher than inflation.
- 5.3 The most notable change was in the first year of price control, from January 1998. **Telkom** that year took advantage of the rule which allows it to increase individual prices by up to 20% above the rate of inflation and increased the daytime price of local calls by a full 20% **above** the rate of inflation. Subsequent price increases have been less marked, though the **callmore** price of local calls went up by over 70%, after taking account of inflation, last year and by over **7%**, after taking account of inflation, this year.
- 5.4 The experience of business customers has closely paralleled that of residential customers, although those business customers who make frequent long distance and international calls will have gained proportionately from the marked reductions in the prices for those services offsetting the increase in local call charges and rentals.
- 5.5 In one area, however, business customers have fared particularly badly. The rental, for example, of digital **2Mbit/s Megaline – Main links (Permanent service)** in the 0 – 50km distance, which are extensively used in large company private networks, has gone up in each of the three years of price control by over **20%**. This suggests that either this service was previously greatly under-priced, or that **Telkom** sees market advantage in raising the price of this type of facility on which competitors to its own **services** business currently depend.

- 5.6 Overall, customers have received the benefit that Telkom's average prices have decreased, as required under its licence, after taking account of inflation, by 1.5% each year. This amounts to a cumulative reduction in real terms (i.e. after allowing for inflation) over the full three years period of almost 5%. However, residential customers, particularly those who have mostly made local calls or who have not used the service very intensively, will have suffered unfavorable price movements overall from the initially sharp increases in the price of local calls and the steady increase in rentals.

Q2 ***ICASA invites comments on whether the current regime has resulted in Telkom meeting the objectives set for price capping.***

6. **Telkom's financial results**

- 6.1 In assessing the reasonableness of these price movements, the first issue that arises is how have Telkom's financial results in providing the controlled services been affected? Can Telkom, at current or predicted levels of efficiency, finance the provision of individual services at current prices? Unfortunately, Telkom's internal management accounting has not yet developed to the point where it is able to provide a breakdown of the costs of each individual service, in addition to the revenue received from each service. It is therefore not yet possible to establish Telkom's financial results by service.

Cost allocation

- 6.2 However, where network operators are competing with each other to provide services, it becomes essential that they should know the detailed basis of their costs in order to price their services competitively. Understanding in detail where costs are being incurred also helps businesses to improve their efficiency and to price their services in a way, which will attract customers to use them more extensively and so help to reduce unit costs.
- 6.3 In recent years there has been rapid progress by telecommunications network operators in competitive markets in developing costing allocation methodologies that give a reasonable indication of the level of costs incurred in providing individual services. The main basis of these "Activity Based Costing" (ABC) methodologies, which seek to

analyse in detail the basis of cost causation in terms of the activities carried out in providing each individual service. Although some degree of arbitrary cost allocation inevitably remains, these techniques have been found greatly to reduce the amount of arbitrariness and to increase the detailed knowledge of how costs are being incurred.

Regulatory accounts

- 6.4 Under the terms of its licence, Telkom is required to provide regulatory accounts in accordance with a **chart** of accounts and a cost allocation to be agreed upon with the regulator. **Telkom** is currently in discussions with ICASA on these matters. The company is addressing the related accounting issues internally with the help of international experts, but does not expect to be in a position to provide detailed cost information for individual services before the beginning of 2001.
- 6.5 The Authority has set the deadline for the availability of full regulatory accounts as March 2002. These accounts will be essential in the competitive environment which is expected to develop from May 2002 onwards, since detailed costing methodologies play a central role in determining the prices for interconnection between networks, without which network competition cannot become effective. Both **ICASA** and **Telkom** will be giving priority to resolving the detailed issues concerned over the next few months.

Q3

ICASA would welcome comments on issues relating to cost allocation and the competitive pricing of services.

Ratio of prices for services

- 6.6 Meanwhile, in the absence of detailed costing' information in relation to individual services, **Telkom** has followed a more general approach in determining its programme for rebalancing prices in order to bring them more into line with costs. It has been seeking to adjust the ratio of prices, between local, long distance and international call charges to bring these ratios more closely into line with the ratio of prices observable in competitive telecommunications markets. In order to establish a benchmark for such ratios, **Telkom** has compared information from a range of Western European

countries where competition between telecommunications networks is already well established.

- 6.7 This approach has the broad rationale that prices in the countries concerned can be expected by now to be broadly in line with cost. They should therefore provide a reasonable general guide on the proportion of costs likely to be incurred in the provision of different telecommunications services.

7. International Price Comparisons

- 7.1 One means of attempting to establish the level of Telkom's price performance is to make direct comparisons with telecommunications prices in other countries. Table 2 (Annex 3) provides illustrative information on comparable telecommunications prices in a wide range of African countries.

- 7.2 Whilst research has been conducted comparing the prices in various African countries, **such research although of general interest, is of comparatively limited use for the following reasons:**

7.2.1 First costs vary widely between different countries due to a variety of causes. The cost of actually providing the network in the first place will vary with the geography of the country concerned, network topography, the levels of skills available, the cost of importing or manufacturing equipment, and so on. The level of use of the network will also have an enormous impact on the unit costs of using it.

For example, even between developed countries in Western Europe and North America the level of use of the network has until recently varied by a factor of almost three. Those countries with a high level of telecommunications usage, include the U.S.A and Sweden, which have achieved a lower level of unit costs. This has tended to be reflected in lower prices, which has in turn encouraged further growth in telecommunications usage. A similar process can be observed in countries as they have adopted network competition.

- 7.2.2** Secondly, the degree to which prices in different countries reflect costs incurred in providing the service concerned also varies very widely. It clearly does not say much about the efficiency and effectiveness of the provision of telecommunications services to note low prices in countries that are not yet recovering the cost of the service provided in the price charged
- 7.2.3** Thirdly, there are a number of other extraneous factors that will affect prices. In many countries current telecommunications prices partly reflect the cost of extending and developing the network in order to complete the effective telecommunications coverage of the country concerned. As noted above, this is the current position in South Africa. Telkom is required to provide 2.69 million new working exchange lines (1.676 million of them in under-serviced areas) by May 2002 and is incurring costs in doing so. Part of this cost is reflected in the current price of services.
- 7.2.4** Fourthly, there are a number of difficulties in achieving a fair comparison between countries in order to ensure that like is being compared with like. For example, countries differ widely in their network topography and the structure of their prices. Local call charge areas can differ hugely in size and population (for example between the Greater London local call charge area in the U.K, with over 11 million customers, to a small local exchange and the immediate surrounding area). The distribution (i.e. the frequency of use) of calls of different length can also differ widely. This means that to take a similar length of call, for example three minutes, in different countries may be comparing a very different level of actual customer use giving rise to widely varying costs.
- 7.2.5** Finally, price comparisons based on currency conversion rates are notoriously unreliable, since these rates move quite rapidly and often do not fairly reflect the actual purchasing power of customers within each country.

7.2.6 For these reasons, there has been a widespread preference for making international price comparisons on the basis of a basket of services designed to reflect the actual experience of customers using telecommunications services in each country and to base the monetary comparisons on purchasing power parity calculations.

7.3 Table 3 compares residential prices in South Africa with prices for similar services in the UK. At Annex 2 is an extract from a report published by OFTEL in May 2000 which shows, on the basis of international price comparisons of baskets of services, that UK prices are broadly in line with other competitive countries. At current exchange rates, South African local call charges appear somewhat lower. Allowing for a purchasing power parity adjustment, the difference is less. Fixed charges are much lower. Long distance charges are still considerably higher.

Table 3: Prices (Residential) in South Africa and UK

	South Africa	United Kingdom
Installation	R182	R1,054
Monthly rental	R50	R107.5
Local call: per minute (day)	R0.18	R0.33
Regional call: per minute (day)	R0.60	R0.36
National call: per minute (day)	R1.24	R0.71
USA call: per minute (day)	R5.02	R3.37

Source: Teligen Report, OFTEL Web Site (<http://www.oftel.gov.uk>); ICASA; BT Bill

Table 4 compares the cost of Internet access in South Africa, on the basis of sight price comparisons, with the cost of Internet access in the UK. The outcome of the comparison is much as in the previous comparison.

Table 4: Cost of Internet Access in SA and UK		
	South Africa	UK
Monthly rental	R50	R107.5
2 hour local call:		
weekday	R21.6	R41.3
weekday evening	R7.2	R13.7
weekend	R7.2	R10.1
ISP monthly charge	Free- R100	Free- R190

Source: Teligen Report, OFTEL Web Site (<http://www.oftel.gov.uk>); ICASA

7.4 These comparisons tend to show that the price of services, particularly at local level, in South Africa is not significantly out of line with the prices incurred in some of the competitive telecommunications markets.

Q4 ***ICASA would welcome comments on the above points relating to price ratios and international price comparisons.***

8. The need for and coverage of price controls

8.1 Continuing price controls will clearly be needed during the remainder of Telkom's Exclusivity Period, i.e. until at least May 2002. Even after that date, will take some time for new network operators to establish themselves sufficiently to provide a fully effective competitive challenge to Telkom.

8.2 The first customers to feel the direct benefit of competition are likely to be business customers, who use the service heavily and tend to be concentrated

in urban areas where service is easier to provide. By contrast, unless there are dramatic developments in alternative local delivery technologies, particularly by radio, it seems likely to be some time before residential customers will have a choice of fixed network operator.

8.3 This suggests that, in order to encourage competition over fixed networks to develop quickly, priority should be given to measures that will ensure the rapid development of competition in the business market and the development of a wide range of competing services for business customers. If this approach is followed, business customers will be in less need of protection from price regulation.

8.4 Residential customers, on the other hand seem likely to remain dependent on Telkom's effective monopoly of the local network (other than in urban centres) for the foreseeable future. The emphasis in price regulation can therefore be expected to concentrate increasingly on the protection of residential customers.

8.5 For this purpose, the present coverage of price control appears reasonable, since all the main elements of service used by residential customers are covered.

Q5

<i>Comments are invited, on the need for and coverage of price control</i>
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Permitted individual price increases of 20%

8.6 However, one element of concern, in the rules governing the controlled basket of services, is the rule under which Telkom is able to increase any individual price by 20% above the rate of inflation. As seen above, residential customers bore the brunt of this in relation to the initial increase of local call charges during the first year of price control. Since then, Telkom has not increased prices by this amount, except in very specialised areas. This suggests that, in

relation to the generality of prices, the 20% rule will no longer be required in order to enable Telkom to achieve a reasonable level of rebalancing of its prices in preparation for competition.

- 8.7 In that case, it might be appropriate in future to reduce the 20% rule to for example, a maximum of 5%. This could possibly be subject to a provision that, in exceptional circumstances, where Telkom could demonstrate to the satisfaction of the regulator that its prices were substantially below cost, the regulator could authorise a higher level of increase. Such an amendment to the current rule would remove a major source of vulnerability, particularly for residential customers, and would provide a general assurance that rebalancing from a position of market power would in future only be carried out where it could be shown to be strictly necessary.

Q6

Comments would be welcome on this proposal and on what would be an appropriate maximum percentage for individual price increases.

9. Efficiency

- 9.1 As noted above, one of the main benefits of the price cap approach to price regulation is the incentive it provides to improve efficiency. The question therefore arises as to how far Telkom has managed to improve its efficiency, in demonstrable ways, over the last three years, and how much scope it has for doing so in the next few years.

- 9.2 One of the main elements in improved efficiency from the modernisation of telecommunications networks is a higher level of labour productivity. This is made possible both by the use of new automatic equipment and by the more intensified use of the telecommunications system that new technology allows. Table 5 gives some indications of the improved levels of labour productivity that Telkom has been achieving.

Table 5: Productivity Indicators

	1997	1998	1999	2000	4-year growth %
Number of lines	4,258,065	4,645,065	5,075.417	5,492,838	8.24
Lines per employee	75	82	83	112	12.42
Revenue per line	3,574	3,878	4,079	4,378	8.43
Operating costs per line .	2,652	3,094	3,441	3,847	12.75

Source: Telkom Annual Report 1999/2000, page 73

9.3 In the absence of detailed cost information it is not possible to reach a substantial conclusion on the level of Telkom's overall comparative efficiency. Some indications can be gathered from international comparisons of numbers of telephone lines per employee. Table 6 gives an indication of this figure for a number of different countries.

Table 6: Lines per employee

Country	Operator	Year	Lines per Employee
Australia	Telecom Australia	1995	124
EU Average		1995	196
Lesotho	Lesotho Telecom	1998	25
Mexico	Telmex	1995	180
Morocco	Itissalat Al Magrib	1999	113
OECD Average		1995	195

UK	BT	1999	208
USA	SBC	1995	240

Source: ITU; ANRT; BT

9.4 This suggests that further significant efficiency gains may be possible as the telecommunications sector develops in South Africa. Though, as in the case of international price comparisons, too much weight should not be placed on this single ratio without full supporting information about the circumstances to which it relates. For example, heavy use of contracting out of network construction or maintenance tends to increase the ratio of lines per employee materially, though the firm may be no more efficient. Diversification of the company's activities tends to have the opposite effect. Problems with levels of employment in a country inevitably mean that the flexibility with which staff can be redeployed is reduced.

Q7 *Comments are invited on Telkom's perceived levels of efficiency.*

10. Quality of service

10.1 Quality of service is to a large extent the reverse side of price control since, from the customer's point of view, a reduction in quality of service is often equivalent to a price increase. Telkom's quality of service is regulated under the terms of Condition 6.1 and Schedule B of its main licence. These lay down improvements to be achieved, in the period before there is effective competition, in respect of numbers of customer fault reports, time taken for fault repair, serviceability of public payphones, time taken to provide exchange lines and numbers of customers waiting for service. Telkom is subject to specified financial penalties for failure to meet the targets set.

10.2 To date, Telkom has, as required, eliminated the old waiting list. However, Telkom has not met all of the targets for each relevant financial year. For the year 1997/98 Telkom incurred service quality penalties of R3,300,000.00 (in

respect of speed of fault repair and provision of service to business customers) and a rollout penalty of R 299,700.00 (in respect of rollout to schools). For the year 1998/99 Telkom incurred a service quality penalty of R299,700.00 (in respect of speed of fault repair for residential customers).

- 10.3 The general perception appears to be that Telkom's quality of service, is steadily improving, but perhaps not as rapidly as might be the case if it was subject to effective competition. This would further support the case for moving as rapidly as possible to competition, while maintaining measures of consumer protection, particularly for residential customers, until competition becomes effective.
- 10.4 Better incentive effects and a more directly favorable impact on customers are achieved by including service guarantees in individual customer contracts. These are preferably accompanied by the acceptance of limited liability. Customers who suffer the effects of failure to provide service to the guaranteed levels receive compensation and limited redress for any consequential loss. This provides powerful internal incentives, at minimal cost, for the company to improve its service performance and improves its relationship with its customers. Regulatory intervention is minimised. This has become a standard part of utility regulation in the UK and elsewhere in Europe.
- 10.5 Further useful incentives to the company, and benefits to customers, can be achieved by requiring the company to publish its main quality of service statistics on a regular basis. These statistics, which can usefully be published on a regional basis, should relate to key parameters that are of particular interest to customers, such as time to provide service, speed of fault repair, calls lost due to network failure, response time for directory inquiries, and so on.

⁵See Telkom's Annual Report 1999/2000 (Page 73)

- 10.6 **Once these figures are regularly in the public domain, management quickly becomes committed to being able to demonstrate an improving trend. New market entrants find it necessary to follow suit. Users gain information on which to base effective customer choice. The regulator's role can be limited to validating the accuracy of the figures from time to time, preferably in collaboration with the company's internal audit department.**

Q%

Comments are invited on quality of service, particularly as it relates to price control.

11. Cost of capital

- 11.1 **One of the essential costs that all companies have to meet is the cost of servicing the capital already invested in the firm and the capital required for its future development. Unless the company can provide a reasonable rate of return to investors it cannot maintain or develop its business.**
- 11.2 **This is therefore a cost that must be taken into account in considering the acceptable rate of return of a regulated company. If prices were being related to costs the level of profit would be equal to the cost of capital for the firm. If the firm is efficient and earns a profit equal to its cost of capital, no exploitation of customers is taking place, since this is the level of profit that a firm in a competitive market would expect to earn.**
- 11.3 **Table 7 shows Telkom's current return on capital employed (ROCE), calculated from information in its published financial statements (pages 37 to 39). The normal method of measuring profit is before interest and tax. Capital employed is defined as long term debt plus shareholder's equity, minority interests and long term provisions. This is known as the *net assets method* and provides a simple way of comparing the profitability of different firms.**

- 11.4 An alternative method, known as the *net finance method*, treats all finance (after deducting cash and short term investments) as part of capital employed. **The argument for this approach is that profit should be struck before all financing costs (and short-term investment income) because the measurement of operational performance should be independent of the way in which the business is financed, Both methods are shown in the table.**
- 11.5 **The cost of the capital employed will depend on its form. The most efficient form of financing is normally a mixture of equity and debt. The level of return that a company needs to maintain a healthy share price, which will enable it to raise money more cheaply in the future, is normally estimated for regulatory purposes using the capital asset pricing model (CAPM) or the dividend growth model (DGM). The CAPM considers the risk premium, the level above the return on government debt, which investors in the company will require. DGM looks at how investors are likely to value the future dividend stream from the company. In current circumstances, looking ahead to when Telkom is in the private sector, it appears that CAPM is the more appropriate.**
- 11.6 **Applying this approach to Telkom's current ROCE, suggests that a competitive return on equity for the company would be in the order of 20%, on the basis of the following considerations. The Reserve Bank of South Africa's risk free rate is 12.5 to 13%. Telkom, as a strong company in a developing sector, could be expected to have a stock market risk co-efficient below 1, so its risk premium would be on the low side of the 8 to 9% normally expected. Investors would need a reasonable after tax return, taking account of the current rate of corporation tax of 30% and the current overdraft rate of around 15%.**

TELKOM RETURN ON CAPITAL EMPLOYED

NET ASSET METHOD	GROUP		COMPANY	
	2000	1999	2000	1999
-	37,324	29,789	35,223	28,537
Share Capital	8,2%	8,294	8,2%	8,294
Retained profits	7,104	5,254	5,515	4,504
Minority interests	49	84	-	-
Long term debt	19,946	13,541	19,113	13,033
Long term provisions	2,302	2,705	2,301	2,703
Intangible assets	(371)	(89)	-	-
Return on capital				
Profit after extraordinary items but before interest and tax	4,825	4,444	3,529	3,615
ROCE	13%	1wo	10%	13%

NET FINANCE METHOD	GROUP		COMPANY	
	2000	1999	2000	1999
-	44,709	37,637	41,847	35,254
Shareholder's funds	8,294	8,294	8,294	8,294
Retained profits	7,104	5,254	5,515	4,504
Minority interests	49	84	-	-
All debt	27,331	21,389	25,737	19,753
Long term debt	19,946	13,541	19,113	13,0%
Current liabilities	7,385	7,848	6,624	6,717
Long term provisions	2,302	2,705	2,301	2,703
l ~ k -	(371)	(83)	-	-
Return on capital				
Profit after extraordinary items but before interest and tax	4,33s	4,444	3,529	3,615
ROCE	11%	12%	8 %	10%

Source: Telkom Annual Report 1999/2000 (Pages 37 & 39)

- 11.7 The long-term debt rate of 13.5 to 14.5% would apply to Telkom's now substantial debt, element of, the capital employed, suggesting a weighted average cost of capital of equity and debt combined in the order of 17 to 18%. A cost of capital in this range would be comparable with telecommunications companies elsewhere.
- 11.8 It can be seen from Table 7 that, on the above analysis, Telkom has some way to go before it is earning a rate of return that would fully cover its likely cost of capital in the private sector. The main reason for this appears to be the high level of borrowing that has been necessary to finance the rapid expansion of the network to meet the Roll-Out Targets. This has taken Telkom's debt to equity ratio to 1.6 to 1. This level of debt might be thought likely to have more than exhausted the benefits of the lower cost of debt finance and be starting to raise the cost of capital. This will no doubt be a consideration in the capital structuring of the company on further privatisation.
- 11.9 Meanwhile, it appears as if Telkom is not making any excess profit and this must be an important element in the price control judgement.

Q9 *ICASA would welcome comments on the Telkom's profitability and cost of capital, in the light of the above points*

12. The form of price cap

Appropriate index

- 12.1 The price control formula in the Rate Regime is related to the Consumer Price Index (CPI). It might be argued that this index is not directly relevant to telecommunications and is therefore not an appropriate basis for price control in the sector. However, an index of appropriate telecommunications costs does not exist. Even if it did exist, such an index would be dominated by the operations of the incumbent monopoly operator and would largely reflect the

degree of buying efficiency that the incumbent was achieving rather than the general levels of efficiency it should be achieving.

- 12.2 In any case, the main objective of the index used in the Rate Regime formula is to relate the price performance required of the operator to the customer's general buying experience. For this purpose, what is required is an index that is well known and generally understood to reflect the overall trend of inflation. The Consumer Price Index is well suited to this. ICASA accordingly considers that CPI is the appropriate index to use.

Method of applying CPI

- 12.3 One matter of concern does, however, arise in the way that the CPI index is applied under the current rules. These require the level of CPI to be used in each yearly calculation of allowable prices to be based on an estimate what the rate of CPI will be for the year in question. As can be seen from Table 1, this has resulted, in the case of two of the last three years, in figures for CPI being used that were higher than the actual figure turned out to be. This has slightly disadvantaged customers in that the cumulative measure of inflation by this means has been just over 2% higher than the actual cumulative increase has been (120.04% against 117.99%) in terms of figures used in Table 1. To this extent prices charged by Telkom have been slightly higher, in aggregate, than they would otherwise have been.

- 12.4 An alternative way of applying the index, which is used elsewhere in price control for telecommunications, is to use the actual figure for the relevant index from the previous year. This avoids the difficulty referred to above and means that prices reflect the actual experience of inflation, reduced as appropriate to meet the price control target. Although the measure works one year in arrears, the impact over a number of years will be effectively neutral, provided inflation is reasonably stable.

Q10 *ICASA would welcome comments on issues relating to use of the CPI and to the possibility of applying the CPI on the basis of the level of the index recorded the previous year, rather than on the basis of the level forecast for the current year.*

Time period

12.5 The time period over which the price control target should be set is an issue of concern because some time is necessary for the full incentive effect of such a target to be felt. It inevitably takes some time for the company and its management to respond. On the other hand, the longer the period the greater the uncertainty about what circumstances will be towards the end of the period. In South Africa this is especially true at the present time, when there is inevitably great uncertainty about how the competitive regime will develop and what influence that will have on the market. Telkom has said that, because of these uncertainties, its business plan does not currently extend beyond the end of the Exclusivity Period.

12.6 In these circumstances ICASA does not consider that a firm decision can sensibly be taken at this stage on the length of the next control period. ICASA is instead inclined to decide on any amendments to the Rate Regime that currently appear necessary and to review the length of time over which the revised Regime should apply in eighteen months to two years time. Even then the details of the future competitive regime should be clear and detailed cost information should be available from Telkom on which to base a decision.

Q11 *Comments are invited on this approach.*

Volume changes

- 12.7 The economics of telecommunications networks are particularly sensitive to the volume of traffic. This is because there is a high fixed cost to installing the network in the first place and subsequent usage gives rise to comparatively low cost. Increases in traffic volume tend to have a marked impact on levels 01 profitability. Sometimes major volume increases may come from extraneous sources, such as the recent dramatic growth in South Africa of the cellular mobile networks. These have been creating much new traffic between fixed and mobile customers.
- 12.8 One way of taking account of this effect would be to include some form 01 automatic adjustment to the tariff control formula if unexpected volume increases were experienced. Customers would gain immediately from lower prices instead of having to wait for the next price control review.
- 12.9 This would, however, complicate the formula and could weaken the incentives on **Telkom** to increase sales volume by every possible means. Anything that could detract from pressures to grow the telecommunications market is to be avoided.

Q12 *Comments on this point are welcome.*

13. The setting of price controls

- 13.1 The central judgement in price regulation relates to the setting of the main price reduction target, the level of X. For this purpose the regulator ideally needs as much information as possible about the financial prospects of the company, its investment programme, its level of costs and how they will change, its sales volume and how this will develop, and so on. Various assumptions about these

variables can then be modelled and set against possible changes in the Rate Regime to gain a greater understanding of the likely outcome.

Lack of information

- 13.2 Unfortunately, in current circumstances, most of such information does not exist in relation to Telkom. The financial prospects of the company are dominated by decisions that will need to be made in relation to its forthcoming privatisation. The nature of the competitive regime that will follow is not yet known. Telkom feels unable to formulate a business plan to address such an uncertain environment. It does not therefore have forecasts of some of the key parameters of the business beyond March 2002.

Efficiency gains

- 13.3 In consequence, judgement of the appropriate price reduction target can only be made in broad terms. The current level of X at 1.5% appears fairly undemanding compared with efficiency improvements of perhaps 3 to 6% that might be expected to be well achievable by a telecommunications company in Telkom's position. Nor does the level of 1.5% seem likely to be very relevant to the efficiency gains, in terms of productivity improvements, product and service enhancement and efficient pricing that will be stimulated by the onset of competition in the business market in particular.
- 13.4 An alternative approach is one where the productivity factor X is expressed as a percentage of CPI. For example, where the applicable CPI is 5% and the level of X is 20% thereof, then the calculated productivity factor will be $\frac{20}{5} = 4$. The allowable increase would then be equal to $(5-1)\% = 4\%$. This approach to the setting of the productivity factor has the advantage of allowing the impact of inflation as its value will increase or decrease in line with corresponding levels of the relevant CPI.

Financing Universal Service

- 13.5 But, as identified earlier, the level of X was part of a balanced approach to meeting the problems of affordability and the rapid extension of the network that South Africa urgently requires. Telkom has been deliberately set a lower target than might otherwise have been the **case in recognition** of the **investment**, cost and management burden it has been taking on in meeting demanding universal access and service targets.
- 13.6 The first problem with the present approach is its **lack** of transparency. Telkom is aware that these obligations are taking a large investment and that at least some of the new lines and facilities are, for the moment, uneconomic at ruling prices. However, the company does not have a detailed knowledge of the impact of these costs. The regulator is unable to track them.
- 13.7 The second problem is that the approach is unsuited to a competitive environment. Universal service provision requirements fall at present on the single monopoly operator. The Universal Service Agency (USA) which is responsible for the Universal Service Fund (USF) has confined the use of the limited Fund to the promotion of schemes to create affordable access and to assist individuals obtain access to the network who would otherwise be unable to do so. The key contributors to the Fund are Telkom, and the two mobile cellular telecommunications operators.
- 13.8 Elements of competition can be introduced into such arrangements by allowing competing operators to contribute operationally to meeting universal service obligations and by, where appropriate, going **out** to tender for the provision of universal service in uneconomic areas by whoever charges the least for **taking** on the obligation. This has been successfully carried out in a number of countries.

13.9 ICASA will wish to explore the development of such arrangements regulatory accounting methodologies are put in place that would effective implementation.

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“3 Comments on the setting of price controls and the financing of universal service obligations will be welcome.

Level of X

13.10 Provided the overhang of the costs of meeting universal service objectives be satisfactorily dealt with, it should be possible to move to a more objective basis for the price reduction target – at least in the area of residential services where it is likely to be important for some time to come. An early move to a level of 3% for X in the price control formula would recognise the expected levels of efficiency gains that Telkom should, in the light of international experience, be capable of achieving in this area of its business. This move coupled with a continuing safeguard provision of 1.5% in the business rate basket, which Telkom might be expected to better in conditions of competition.

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13.11 ICASA will wish to examine the case for proceeding in this way, as well detailed financial implications and the practicalities of implementation, the light of responses to this document.

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“4 Comments will be welcomed on issues relating to the level of X in the light of the above points.

Separate baskets of services for residential customers

13.12 At present there is a single basket of controlled services. This gives Telkom useful commercial flexibility to rebalance its prices to bring the price of

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different services into line with costs, subject to the overall requirement to reduce the average level of prices. Telkom is also currently subject to the restriction that no individual price should change by more than 20% above the level of inflation.

13.13 A simple single basket of this sort has the advantage of being comparatively easy to understand and apply. It is well suited to the situation where all segments of the market are subject to similar circumstances. However, as mentioned above, when Telkom's exclusivity ends and competition is introduced, competition is likely initially to be concentrated in the business market. Most residential customers can be expected to remain Telkom customers for some years to come. There will be a correspondingly greater need for protection from exploitation in the residential sector of the market.

13.14 This suggests that there might be advantage in having a separate sub-cap, or even a separate basket, for residential customers. This might be subject to a somewhat more stringent price control than the business sector where price controls might be regarded as a safeguard provision until competition in that sector becomes fully effective. Separate treatment for residential customers would not be unprecedented. For example, in the UK control over British Telecom's retail prices has recently been confined to the 80% of residential customers with the lowest bills.

13.15 Concentrating the main impact of price control on residential customers WOULD ensure that those most in need of protection received it. Competition in the business market would be freer to develop and Telkom would have more commercial freedom to respond to it. This approach might also make it more possible to tighten price control for residential customers to take fuller account of efficiency gains than has so far been possible.

Q15

ICASA would welcome comments on the possibility of a separate sub-cap, or separate basket, for services used by residential customers, which might be subject to a different level of X.

Timing

13.16 ICASA will finish carrying out a satisfactory process of consultation on the issues raised in this document, and will complete the formal processes for the making of amending regulations. Meanwhile, Telkom has filed new price adjustment proposals in November this year. Although it would be possible, within the terms of the legislation, to require some further price adjustments during the course of next year, this could raise awkward complications at a time when all parties concerned are expected to be heavily engaged in discussions and action to restructure the sector.

13.17 Although ICASA is not ready to prejudge its position it would not, unless there were unforeseen developments, expect to apply any new Rate Regime provisions before the beginning of 2002. By then many of the existing uncertainties should have been clarified and all parties should be in a position to respond appropriately.

Q16 **Comments on issues relating to timing are invited.**

14. impact on customers

Effects of rebalancing

14.1 Apart from the limited overall reduction in prices, in real term, the most noticeable impact of the price changes over the last three years of price control in South Africa has been to make the service less affordable to poorer customers. This is a common experience in countries engaged in the reform of telecommunications reform process. It arises because the rebalancing of prices towards cost results, in particular, in increases in rentals and local call

charges. Poorer customers are almost invariably low users of the service. This means that a high proportion of their bills will be rental and local calls, for which the price has gone up. Those who can afford to use the service more heavily will, generally speaking, have made more long distance and international calls and will have gained the benefit of lower prices for these services.

- 14.2 Of course, it is not only well-off customers who use long distance services. One of the ironies of seeking to protect low-income users by artificially holding down the price of local service is the unintended perverse effect this tends to have. Certain individuals, such as students calling home, families contacting elderly relatives, workers away from home, and so on, who can barely afford it, pay inflated prices for long distance service. In doing so they find themselves cross subsidizing wealthy residential and business customers of local service, who could well afford to pay the full cost. It makes better sense to move prices over a reasonable period towards cost, open the market to competition in order to gain the benefits of lower costs and increased usage that this brings and, during the transitional period, target those in need for special help.

Low Usage Schemes

- 14.3 There are at present two sources of special help for low users in South Africa. First, the Universal Service Agency (USA) promotes schemes for the provision of low cost access to telephone service. The USA also promotes schemes to assist individuals, particularly those who can afford to stay on the network but need help to pay for installation. However, the USA finds that the USF budget of R10 million cannot meet the full need for such schemes.
- 14.4 Secondly, **Telkom**, in addition to a number of schemes for elderly and disabled customers, operates a prepaid service (PrepaidFone) under which new customers pay less for installation. Also, most importantly, they can in practice remain **contactable** on the network for an extended period if they have to cease payments for the time being. However, the price of calls under PrepaidFone is

higher than the billed service and PrepaidFone becomes more expensive overall if the monthly spend exceeds R148 (rental and calls including VAT). As a result, the appeal of the scheme is limited and it is understood that take up has not been high.

- 14.5 It is also worth noting that the mobile operators have been making useful contributions to meeting the needs of low users through their own highly successful prepaid tariffs, on which the Telkom scheme was modelled. These tariffs similarly enable low users to ration their financial commitment easily and stay contactable if they cease payments for a period. Although usage is more expensive, call for call, the economy service that the prepaid tariff makes possible has been instrumental in putting mobile telephony within reach of more customers than the fixed network.⁶

Basis for a low usage scheme in South Africa

- 14.6 ICASA is nonetheless concerned about reports of customers, who have received telephone service under the Roll-Out Targets, being unable to afford to stay on the network. It is ICASA's view that serious consideration should be given to developing a better focussed and more comprehensive low usage scheme targeted specifically at those whose ability to afford telephone service is marginal. Many other countries have such schemes, including the UK and the USA, where the schemes are helping millions of customers to join and stay on the network. In South Africa today, helping such people is of critical importance.
- 14.7 This form of cross subsidy has a reasonable economic basis because everyone on the network benefits from being able to contact more people.

⁶ Finance Week of 7 July 2000.

There are also broader economic and social benefits from enabling people to be more economically and socially active, cutting out wasted journeys and so on.

- 14.8 The essential features of a satisfactory low usage scheme are, first, that it should be targeted as widely as possible within affordable limits. Secondly, that at the bottom end it should make a genuine contribution to making telephone service more affordable. Thirdly, that it should be automatic or else extremely easy to join. And, **fourthly**, that it should not be subject to any sort of penalty for extra use, should this occur.
- 14.9 In the UK, for example, the relevant scheme is designed to help the **lowest** 20% of residential customers. Transfer to the scheme was originally automatic for all that qualified for it and it is now specifically drawn to the attention of all new customers. The maximum benefit extends to a 60% reduction in rental, which is tapered off as the customer achieves **a usage level** above the **lowest** 20% of customers. Other countries have a variety of schemes.
- 14.10 **ICASA** tends to believe that it is unlikely to be possible, for reasons of administrative expense, to base eligibility on income. So that eligibility will have to be based on low usage. This appears to have been the international experience in places like the UK.
- 14.11 **ICASA** would expect to see such a scheme financed from within the industry, in view of other government spending priorities. Some countries do so by levy on network operators' revenue. In other countries, including the UK, the incumbent operator has been prepared to finance the scheme in order to gain greater commercial flexibility over the rest of its pricing. In some countries again including the UK, the cost of the scheme has been taken into account by the regulator in setting the level of X in the price control formula.

14.12 In the light of responses to this document, ICASA will expect to undertake discussions with Telkom, the Department of Communications and the USA on how such a scheme might be carried forward.

Q17

ICASA would welcome comments on the impact of rebalancing on consumers and the possibility of developing a more comprehensive low user scheme, on the basis of such a scheme and on how such a scheme might be financed.

Information for consumers

14.13 Another possible improvement in the current Rate Regime would be greater transparency in its operation and in the information available to customers about Telkom's tariffs and the basis on which they have been determined. Under Condition 6.2.2 of its main licence Telkom is required to make details of its tariffs publicly available at its registered offices and to send them to anyone who requests a copy. There has been criticism as to how punctually and how effectively these obligations are carried out. There has also been criticism about the lack of publicity given to rate filings by Telkom before they have been approved as coming within the terms of the Rate Regime.

14.14 Possible improvements might include requiring Telkom to publish its rate filings, in a prescribed manner, when the filing is formally made and to publish its tariffs, also in a prescribed manner, well before these come into effect. Both procedures would have many precedents in other countries. In the UK, the requirements are to publish in the Official Gazette and in a number of national and regional newspapers. These publications could be expected to raise consumer awareness of Telkom's tariffs and improve the level of information on which customers could exercise choice when competing services become available. This is an important element in ensuring that competitive markets serve consumers effectively. Another consideration is whether consumers and interested parties should be allowed to make written submissions on proposed tariffs and whether these submissions should be taken into account by the Authority in deciding whether or not to approve such tariffs.

Q18

ICASA would welcome comments on these and other aspects of improving the information available to consumers on tariffs under the Rate Regime.

Average residential bill

14.15 Finally, another important element of information concerning the price of services to residential customers is availability of information about how consumers are actually using the services at ruling prices. In competitive telecommunications markets there has been a rapid development of market segmentation as suppliers have analysed the different segments of the markets they are addressing and developed service and tariff features to maximise sales to each segment. This is one **way in which competition assists efficient pricing** and enhances distributional efficiency.

14.16 Meanwhile, particularly during the process of rebalancing, the regulator has an immediate interest in establishing on an objective basis how the average residential customer is faring under the ruling tariffs and what has been the actual impact of price adjustments. Reliable statistical techniques to determine the average residential bill are now well established. For example OFTEL has published working papers on the subject, which are available on the Internet, and has monitored the UK average residential bill since 1989. British Telecom carries out a quite extensive sampling process for this purpose each year and the average residential bill (more precisely, the median residential bill) has been used in the UK as a reference point for price regulation.

14.17 Once an objective measure of this sort exists, the regulator, government, the incumbent operator and consumer interests are able to judge effectively how price adjustments are actually affecting customers and can respond accordingly, rather than having to rely on anecdotal evidence.

Q19

ICASA would welcome comments on the merits of developing procedures to establish the average residential bill in South Africa.

15, Conclusion

15.1 In the light of the points discussed in this document, ICASA is **considering** the case for making the following changes in the Rate Regime:

15.1.1 **modification of the rate of X** from 1.5 % to 3% **in respect** of residential customers only;

15.1.2 **amendment of the** rule allowing individual prices to be increased by 20% above the **rate of inflation** to 5%, **subject to** consideration of exceptional cases by ICASA;

15.1.3 modification of the method of applying CPI to **take account of the** annual change in CPI recorded in the previous year.

15.2 ICASA also **intends to give priority to:**

15.2.1 **finalizing arrangements** for the preparation of regulatory account by Telkom, in conformance with its licence requirements;

15.2.2 preparing the way, in consultation with the Government, as **appropriate**, for the rapid development of competition in telecommunications.

15.2.3 further consideration of **proposals** for the establishment of arrangements for the transparent funding of the net **cost of providing** universal access to telecommunications services, by means of a levy on network operators' revenues.

15.3 ICASA would welcome comments on these general points as indicated throughout the document and on the following specific issues raised in this document:

- 15.3.1 whether there are fundamental features in the present Rate Regime that are open to question (Q1)
- 15.3.2 whether the current regime has resulted in Telkom meeting the objectives set for price capping (Q2)
- 15.3.3 issues relating to cost allocation and the competitive pricing of services (Q3)
- 15.3.4 points relating to price ratios and international price comparisons (Q4)
- 15.3.5 the need for and coverage of price control (Q5,)
- 15.3.6 the suggestion that the rule allowing Telkom to increase individual prices by 20% should be amended to 5%, except in exceptional cases approved by the regulator (Q6);
- 15.3.7 Telkom's perceived levels of efficiency (Q7);
- 15.3.8 quality of service and its relationship with price regulation (Q8);
- 15.3.9 Telkom's profitability and cost of capital (Q9);
- 15.3.10 issues relating to the use of CPI and the possibility of applying the level of CPI from the previous year (Q10)
- 15.3.11 15.3.11 the proposal to review the period for the application of the revised Regime in 18 months to 2 years time (Q11)
- 15.3.12 the proposal not to make provision in the price control formula for unexpected volume changes (Q12)

- 15.3.13 **the setting of price controls and the financing of universal access and service obligations (Q13);**
- 15.3.14 **the level of X (Q14);**
- 15.3.15 **the possibility of a separate sub-cap, or separate basket, for services used by residential customers, which might be subject to a different level of X (Q15)**
- 15.3.16 **issues relating to timing (Q16);**
- 15.3.17 **the impact of rebalancing on consumers and the possibility of developing a comprehensive low user scheme, the basis of such a scheme and how such a scheme might be financed (Q17) ;**
- 15.3.18 **the provision of improved information for consumers on tariffs under the Rate Regime (Q18);**
- 15.3.19 **the merits of developing procedures to establish an average residential bill in South Africa (Q19).**
- 15.4. **Comments should be addressed to ICASA as directed at the beginning of this document.**

ANNEX 1

White Paper on Telecommunications Policy

15 March 1996

Chapter 6- Affordability and tariff setting

6.1 The adequate attainment of universal access and service goals is largely dependent upon meeting the requirements of affordability. Indeed, the manner in which the cost of services is regulated or determined is fundamental to the implementation of Government policy. **The key requirement is to create a balance** between affordability and the needs of the operator to expand and upgrade its network. This chapter seeks to create such a balance.

Tariff Regulation

6.2 In respect of tariff regulation, the Ministry favours the application of the following principles:

6.2.1 Tariffs should be regulated. However, the nature and extent of such regulation will vary in accordance with the circumstances in evidence in different areas of the telecommunications sector. The dominant influencing factor is the presence or otherwise of competition.

6.2.2 Tariff regulation is unnecessary in the face of sufficient competition to allow market forces to determine pricing levels. Regulation would, however, be required in such competitive areas in response to collusion or to eliminate any threats or acts of predatory pricing.

6.2.3 In areas of the telecommunications sector in which a monopoly is in place, or in which competition is not sufficient to ensure acceptable levels of affordability, tariffs should be regulated. The preferred mechanism is a price-capping regime,

allowing for the freedom to set tariff levels at any reasonable point below the cap, and for consumer price index-related increases on an annual basis,

6.2.4 The tariffs of franchise telephone services should be regulated by means of a price-capping mechanism, until such time as there is sufficient competition to facilitate the determination of tariffs by market forces.

6.2.5 The independent regulatory authority would be responsible for the regulation of tariffs.

Cross-subsidies

6.3 As regards the question of cross-subsidies, the Ministry favours the following principles:

6.3.1 Under no circumstances should cross-subsidisation from non-competitive services to competitive services be permitted.

6.3.2 Cross-subsidies result in market distortions, and accordingly, as a general rule, should not be permitted. There are, however, two exceptions to this general rule:

- . Cross-subsidisation within competitive areas is not sustainable in the long term, and accordingly is permissible.
- . Cross-subsidisation regimes implemented for the purposes of attaining specified social objectives and which are approved, prior to such implementation, by the independent regulatory authority.

6.3.3 All cross-subsidisation regimes implemented on the grounds of the attainment of social objectives should be transparent to the Regulator, using a chart of accounts and cost allocation manual.

6.3.4 Cross-subsidisation regimes in non-competitive areas should be eradicated as soon as possible.

6.3.5 Tariffs that are inflated for the purposes of effecting approved cross-subsidisation regimes should be protected from competition by other operators, subject to review on an ongoing basis, by the independent telecommunications regulatory authority.

6.3.6 Telkom's tariffs should be completely rebalanced, on a phased basis, as soon as practically possible, but with regard for the realities of the adjustments required.

6.3.7 The Regulator should, in consultation with Telkom, determine a rebalancing timetable, taking into consideration the attainment of social objectives, the practicalities of regular tariff adjustments and the realities of market perception.

Affordability

6.4 The universal service agency will be tasked with the detailed assessment of affordability mechanisms. Special emphasis should be placed upon the investigation of direct subsidy schemes directed at individuals, and upon differentiated pricing structures including the extension of payment periods for installation fees.

6.5 The requirements of the telecommunications sector preclude the extensive subsidisation of telecommunications costs of other strategic social sectors.

Source: Government web site

(http://www.polity.org.za/govdocs/white_papers/telewp.html)

ANNEX 2

Extracts from an International Benchmarking Study of Telecommunications Services [in France, Germany, Sweden, UK, USA (California) and USA (Ohio)]

Prepared for OFTEL by Teligen Ltd, May 2000

Results for PSTN

The results for the PSTN price index (which is expressed relative to the UK price level) are shown in Tables 1 and 2 for residential and business PSTN customers respectively.

The PSTN basket results show that:

- . the price levels in the UK for residential consumers are on average 8% higher than the cheapest country, Sweden, and that the other countries considered are up to 18% more expensive than the UK;
- . price levels for UK business consumers are about average. UK prices are close to those in France, Germany and California, with prices in Sweden significantly cheaper and prices in Ohio significantly more expensive;
- . the relative position of UK prices compared to Sweden changes very little with variations in usage.

Note that the analysis has not been able to take account of all of the discount packages available in the US for business consumers and the US position relative to the other countries may in practice be somewhat better than appears from the results.

An examination of the *spread* of prices shows that the price spread for residential business consumers in the UK appears similar to other countries.

Internet service provision

The results for the Internet price index (expressed relative to the UK price level) are shown in Tables 3,4 and 5 for residential off-peak and peak usage and business Internet users respectively.

The results indicate that based on the sample of ISP/operators selected:

- . the UK has the lowest prices of the countries considered for residential consumption for all off-peak baskets;
- . the UK has, on average, the lowest prices for peak time residential usage;
- on average UK prices for business consumers are high compared to the other countries considered – only Germany is more expensive;
- the UK has the highest prices for three out of the business baskets.

An examination of the prices behind the indices suggests that:

- the difference between off-peak and peak usage charges are larger in the UK than any of the other countries; and
- . the difference between business and residential, fixed and peak usage charges, are larger in the UK than any of the other countries.

This explains, in part, the decline in the UK relative position moving from off-peak residential to peak residential to business use.

An examination of the spread of prices indicates that:

- . the **spread** of prices for residential off-peak Internet usage in the UK is **sim** r to that in other European countries, but wider than the USA for higher usage;
- . for peak time residential usage the price spread is widest in Germany and th UK, and considerably smaller in the USA;
- . for business customers in the UK the spread of prices is wider than for most the other countries – only Germany has a wider spread;
- . there is generally a wider spread of prices for **low** usage than high usage.

The market for providing Internet services is changing rapidly at the moment and ere has been a number of new developments since the **survey of operators/ISPs** in February 2000. The relative position of countries may well vary over time.

Source: International Benchmarking Study of Telecommunications Services (**prepa** ed for OFTEL by **Teligen** Limited), 22 May 2000; OFTEL web site (<http://www.oftel.gov.uk>)

ANNEX 3

Table 2: Telecommunications Prices in Africa (2000)

	Angola	Benin	Botswana	C AfrRep	C d'Ivoire	Djibouti	Ethiopia
Connection	\$100	\$102	\$46.87	\$91	\$70	\$140	\$305
Monthly charge	\$10	\$10.40	\$5.07	\$7.5	\$6.44	\$20	\$8
Local 3 minute call	\$0.48	\$0.0115	\$0.03	\$0.21	\$0.11	\$0.30	\$0.20
>150km/minute	\$2.96	\$1.35	\$0.19	\$2.19	\$0.10	n/a	n/a
1 minute USA	n/a	\$3.80	\$1.17	\$3.2	N/A	N/A	N/A
Connection wait	1-6month	15 days	1-4 weeks	>6months	<3 years	No wait	34 years
	Ghana	Kenya	Lesotho	Mali	Namibia	Nigeria	S Africa Standard
Connection	\$375	\$28.96	\$73.33	\$86	N/A	\$606	\$26.22
Monthly charge	\$3.13	\$3.52	\$4.17	\$3.20	N/A	\$1.21	\$7.22
Local 3 minute call	\$0.13	\$0.05	\$0.02	\$0.14	\$0.02	\$0.02	\$0.11
>150km/minute	\$0.19	\$0.39	\$0.10	N/A	\$7.55	\$0.35	\$0.16
1 minute USA	n/a	\$2.56	\$1.88	N/A	N/A	\$2.67	\$0.58
Connection wait	2 weeks	3m-3yrs	3 months	N/A	1-4 weeks	No est.	1-4 weeks
	S. Africa Callmore	Sudan	Swaziland	Tanzania	Togo	Uganda	Zimbabwe
Connection	\$26.22	\$29.29	\$38.49	\$46.15	\$178.10	\$25	\$10
Monthly charge	\$7.22	N/A	\$3.50	\$3.94	\$2.80	\$20	\$11.31
Local 3 minute call	\$0.07	\$0.02	\$0.08	\$0.08	\$0.08	\$0.12	\$0.9-0.13
>150km/minute	\$0.24	\$1.95	\$0.08	\$0.21	\$0.82	\$0.36	\$0.13
1 minute USA	\$0.45	\$2.80	\$2.01	\$3.20	\$4.33	\$1.50	\$1.16
Connection wait	1-4 weeks	16 years	1-4 weeks	3 weeks	4 weeks	1 day	1 day

Source: BMI TechKnowledge 2000; Telkom; ICASA