GENERAL NOTICE

NOTICE 1015 OF 2010

ICASA

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

"CALL TERMINATION REGULATIONS"
PURSUANT TO SECTION 67(4) OF THE ELECTRONIC COMMUNICATIONS ACT NO. 36 OF 2005

I, Stephen Mncube, Chairperson of the Independent Communications Authority of South Africa hereby publish the regulations set out in the Schedule in terms of section 4 read with section 67(4) of the Electronic Communications Act No. 36 of 2005.

Dr Stephen Mncube
Chairperson

SCHEDULE

"CALL TERMINATION REGULATIONS" PURSUANT TO SECTION 67(4) OF THE ELECTRONIC COMMUNICATIONS ACT NO. 36 OF 2005

1. DEFINITIONS

In these Regulations, unless the context indicates otherwise, a word or expression to which a meaning has been assigned in the Act or the ICASA Act has the meaning so assigned, and the following words and expressions shall have the meaning set out below:

"0N" means a geographic area code as specified in Regulation 6 of the Numbering Plan Regulations;

"Authority" means the Independent Communications Authority of South Africa;

"the Act" means the Electronic Communications Act, 2005 (Act No. 36 of 2005);

"ECNS" means an electronic communications network service as defined in the Act;

"ECS" means an electronic communications service as defined in the Act;

"Fixed voice call termination service" means a wholesale voice call termination service provided by an ECNS or ECS licensee to a fixed location, and includes such a service provided by a licensee providing call termination using fixed wireless services;

"ICASA Act" means the Independent Communications Authority of South Africa Act, 2000 (Act No. 13 of 2000);

"Mobile voice call termination service" means a wholesale call termination service provided by an ECNS or ECS licensee to mobile subscriber equipment enabled by wireless technology;

"Reference Interconnection Offer" or "RIO" means a document, approved by the Authority, setting out the standard terms and conditions for interconnection agreements;

"Retail service" means a service offered by an ECS licensee to end-users;

"SMP" means significant market power as defined in section 67(5) of the Act;

"Wholesale service" means a service that an ECS or ECNS licensee offers other ECS or ECNS licensees.

2. PURPOSE OF REGULATIONS

The purpose of these Regulations is to: -

(a) Define and identify the wholesale call termination markets that exist within the borders of the Republic of South Africa;

(b) Set out the methodology used to determine the effectiveness of competition in such markets;

(c) Declare licensees that have SMP;

(d) Set out the pro-competitive measures the Authority imposes to remedy market failure in the relevant markets found to have ineffective competition;

(e) Set out the schedule for periodic review of the relevant markets and the effectiveness of competition in such markets.

3. MARKET DEFINITION

(1) The markets in which the Authority intends to impose pro-competitive measures, if such markets are found to have ineffective competition are the markets for mobile and fixed wholesale call termination services in the Republic.

(2) These markets are categorised according to the type of service provided to the end-user and are defined as follows:

(a) Market 1: The market for wholesale voice call termination services to a mobile location on the network of each licensee who offers such a service within the Republic.

(b) Market 2: The market for wholesale voice call termination services to a fixed location on the network of each licensee who offers such a service within the Republic, consisting of:

i. The market segment for wholesale voice call termination to a fixed location within an 0N geographic area code; **and**
ii. The market segment for wholesale voice call termination to a fixed location between 0N geographic area codes.

4. METHODOLOGY

In determining the effectiveness of competition in the wholesale voice call termination markets, the Authority has applied the following methodology:

(a) the identification of relevant markets and their definition according to the principles of the Hypothetical Monopolist Test, taking into account the non-transitory (structural, legal, or regulatory) entry barriers to the relevant markets and the dynamic character and functioning of the relevant markets;

(b) the assessment of licensees' market shares in the relevant markets; and

(c) the assessment on a forward-looking basis of the level of competition and market power in the relevant markets.

5. EFFECTIVENESS OF COMPETITION

Pursuant to regulation 4, the Authority has determined that competition in the wholesale voice call termination markets, as defined in regulation 3, is ineffective.

6. SMP DETERMINATION

The Authority determines that every licensee that offers wholesale voice call termination services has SMP in its own market.

7. PRO-COMPETITIVE TERMS AND CONDITIONS

(1) The Authority has identified the following market failures in the respective wholesale voice call termination markets:

(a) a lack of the provision of access

(b) the potential for discrimination between licensees offering similar services

(c) a lack of transparency

(d) inefficient pricing

(2) All licensees must comply with the following pro-competitive terms and conditions to overcome the market failures identified in regulation 7(1):

(a) Compliance with the provisions of the Interconnection Regulations (Government Gazette No. 33101 of 2010)

(b) Compliance with the Compliance Manual Regulations to be prescribed by the Authority.

(c) Charge fair and reasonable prices for wholesale voice call termination consistent with Appendix B

(3) The Authority has determined that additional pro-competitive terms and conditions are necessary to correct the market failures identified in regulation 7(1), which are to be imposed on the following licensees:

(a) Licensees that have historically benefitted from the allocation of more efficient lower band spectrum.;

(b) Licensees that benefit from economies of scale and scope in maintaining a share of total minutes terminated in the respective markets of greater than 25 per cent as of June 2009.

(4) The Authority determines that the following licensees have these characteristics:

(a) Market 1:

i. MTN
ii. Vodacom

(b) Market 2:

i. Telkom

(5) All licensees referred in regulation 7(4) of these regulations must comply with the following additional pro-competitive terms and conditions

(a) Publication of a Reference Interconnection Offer (RIO)

i. Licensees identified in regulation 7(4) must submit a RIO to the Authority for approval within forty five (45) days of promulgation of these Regulations.
ii. The RIO must comply with the requirements set out in Appendix A.
iii. The Authority will assess a RIO submitted by a licensee within thirty (30) days of its submission.
iv. Where the Authority determines that a RIO submitted by a licensee is not consistent with these regulations, the Authority will direct the licensee to amend the relevant terms

and conditions of the RIO within a period determined by the Authority which period must not exceed thirty (30) days.

v. If a licensee receives no written communication from the Authority regarding the assessment of its RIO within the thirty (30) day period stipulated in regulation 7(5)(a)(v), the RIO is deemed to be approved.

vi. The RIO will become effective upon approval by the Authority.

vii. Provided that all requirements in the RIO are met by both an interconnection seeker and provider, a request for interconnection based on the RIO must be concluded within fifteen (15) days of such a request for interconnection unless otherwise agreed between the licensees.

viii. A licensee identified in Regulation 7(4) must publish the approved version of its RIO on its website within five (5) days of receiving notice of approval from the Authority.

(b) Price Control: Cost oriented pricing

i. For the period 01 March 2011 to 01 March 2014, any licensee identified in Regulation 7(4)(a) must charge the wholesale voice call termination rates to a mobile location as specified in Table 1:

Table 1: Wholesale voice call termination rates to a mobile location (Market 1)

	Peak	**Off-peak**
01-Mar-11	R 0.73	R 0.65
01-Mar-12	R 0.56	R 0.52
01-Mar-13	**R 0.40**	**R 0.40**

ii. For the period 01 March 2011 to 01 March 2014, any licensee identified in Regulation 7(4)(b) must charge the wholesale voice call termination rates to a fixed location as specified in Table 2:

Table 2: Wholesale voice call termination rates to a fixed location (Market 2)

	Within ON area code		**Between ON area code**	
	Peak	Off-peak	Peak	Off-peak
01-Mar-11	R 0.20	R 0.12	R 0.28	R 0.19
01-Mar-12	R 0.15	R 0.12	R 0.25	R 0.19
01-Mar-13	**R 0.12**	**R 0.12**	**R 0.19**	**R 0.19**

(c) Accounting Separation and Cost Accounting

i. Licensees identified in regulation 7(4) must submit regulatory financial reports in line with the format prescribed in the Accounting Separation and Cost Accounting regulations to be prescribed by the Authority.

8. SCHEDULE FOR REVIEW OF MARKETS

The Authority will review the wholesale voice call termination markets to which these regulations apply, as well as the effectiveness of competition and the application of pro-competitive measures in those markets, after a minimum period of three (3) years from the publication of these regulations.

9. CONTRAVENTIONS AND PENALTIES

(1) A licensee which fails to comply with regulation 7(2)(c) is liable to a fine of Two Hundred Thousand Rand (R 200 000.00);

(2) A licensee which fails to comply with regulation 7(5)(a) is liable to a fine of up to Five Hundred Thousand Rand (R 500 000.000);

(3) A licensee which fails to comply with regulation 7(5)(b) is liable to a fine of up to Five Hundred Thousand Rand (R 500 000.00);

(4) A licensee which contravenes all regulations not specified in regulations 9(1) and (2) is liable to a fine of not more than Two Hundred Thousand Rand (R 200 000.00).

10. SHORT TITLE AND COMMENCEMENT

These regulations are called the "Call Termination Regulations, 2010/11" and will become effective upon the date of publication.

Appendix A: Minimum content of a Reference Interconnection Offer

The RIO that must be submitted to the Authority by the licensees listed in Regulation 7(4) must, among other things, include the following:

1.1. General Legal Principles

- Definitions of terms and abbreviations
- Requirements concerning the exchange and use of information for the purpose of interconnection; and
- Data exchange formats.

1.2. Initiating Negotiations and Proposing Amendments

- Procedure for initiating negotiations as well as that for amending interconnection agreements, including:
  - how a request for interconnection is to be made;
  - to whom a request for interconnection is to be sent; and
  - the information that needs to be included in the application.

1.3. Description of Interconnection Services to be provided

- List of interconnection services offered;
- Full description of each interconnection service; and
- Conditions governing access to services.

1.4. Schedule of Charges for Interconnection Services

- Commercial and financial matters, including billing and collection procedures, and payment terms and conditions;
- The full charge for each interconnection service. Where relevant charges should:
  - be broken down into or built up from the charges for the network components;
  - include an indication of any surcharges;
  - include an indication of charging unit/s (e.g. per second);
- Mechanisms for the review of charges; and
- Billing services for third parties, where relevant (e.g. if operator is billing on behalf of resellers, other ECS or other ECNS).

1.5. Technical Characteristics

- Comprehensive technical description of the interconnect interface(s), including the signalling protocol(s) used;
- Full details of the availability and location of points of interconnection;
- Description of the physical arrangements for interconnection;
- Description of traffic routing arrangements;
- Details regarding access to numbers by the parties
- Requirements to ensure network security or integrity;
- The quality availability, security, efficiency, and synchronization of the services provided.

1.6. Arrangements for the Establishment of Interconnection

- Conditions governing service provision;
- Traffic forecasting requirements and arrangements;
- Arrangements for testing the operation of interfaces and the interoperability of services;
- Fault management procedures (recording and clearing); and
- Conditions governing bank guarantees.

1.7. Other Legal and Procedural Issues

- Provisions on procedures for review, termination, and amendment of interconnection agreements;
- Limitation of liability and indemnity between licensees;
- Penalty clauses; and
- Dispute resolution arrangements and procedures, including the right of either party to request the Authority to intervene to resolve a dispute.

Appendix B: APPLICATION OF THE FAIR AND REASONABLE OBLIGATION

1. PRINCIPLES OF IMPLEMENTATION OF FAIR AND REASONABLE OBLIGATION

1.1. For the purposes of regulation 7(2)(c), "fair and reasonable" prices are rates that are equivalent to the cost-oriented rates imposed on the licensees identified in Regulation 7(5)(b).

1.2. Licensees must charge the following rates:

1.2.1. Reciprocal rates with the rate set for MTN and Vodacom if these licensees are in Market 1;

1.2.2. Reciprocal rates with the rate set for Telkom if these licensees are in Market 2.

1.3. Licensees not listed in Regulation 7(4) may charge higher termination rates based on the following factors:

1.3.1. Spectrum allocation. A licensee must justify why it is adversely affected by current spectrum allocation.

1.3.2. Economies of scale and scope based on the share of total minutes terminated in the relevant market. A licensee qualifies for an asymmetric rate if it has less than 25 per cent of total terminated minutes in the relevant market as of June 2009.

1.4. A licensee may qualify for an asymmetric rate if either or both factors are applicable.

2. LIMITATIONS TO ASYMMETRIC RATE A LICENSEE MAY CHARGE

A licensee who qualifies for an asymmetric rate under paragraph 1.3 of this Annexure may charge a maximum percentage above the cost-oriented rate set in regulation 7(5)(b) according to the following table:

	Maximum percentage above rate set for identified licensees
Current	-
01-Mar-11	20%
01-Mar-12	15%
01-Mar-13	10%

ICASA Wholesale Call Termination Market Review for the period 2010-2013

Explanatory Note for the draft Call Termination Regulations

Table of Contents

List of Tables

List of Abbreviations

Authority	The Independent Communications Authority of South Africa
ECA	Electronic Communications Act No. 36 of 2005
ECNS	Electronic Communications Network Service
ECS	Electronic Communications Service
RIO	Reference Interconnection Offer
VOIP	Voice Over Internet Protocol
SS7	Signalling Protocol 7 as defined by ITU Recommendations
SIP	Session Initiation Protocol as defined by the ITU or any other recognised standards body where no ITU standard is in place.
TDM	Time Division Multiplex as defined by ITU Recommendations or any other recognised standards body where no ITU standard is in place
ON	Geographic area code as specified in Regulation 6 of the Numbering Plan Regulations in terms of the Telecommunications Act, 1996 (GG No. 28839, 15 May 2006: page: 9)
ONN	The three-digit geographic area code that imposes specific locational significance to a number.

1. Executive Summary

1.1 Definition of the relevant market

1. The Authority determines that wholesale voice call termination services may be defined as existing within two markets:

   a. **Market 1**: The market for wholesale voice call termination services to a mobile location on the network of each licensee who offers such a service within the Republic of South Africa.

   b. **Market 2:** The market for wholesale voice call termination services to a fixed location on the network of each licensee who offers such a service within the Republic of South Africa, consisting of:

      i. The market segment for wholesale voice call termination to a fixed location within an 0N geographic area code; and

      ii. The market segment for wholesale voice call termination to a fixed location between 0N geographic area codes.

1.2 Effectiveness of competition in the relevant markets

1. The Authority put forward its provisional conclusion regarding the evaluation of the effectiveness of competition in the relevant markets in Section 2.4 of the Explanatory Note to the draft Call Termination Regulations (GG 33121, page 67).[1]
2. No evidence has been submitted to persuade the Authority that competition in either market for the provision of wholesale voice call termination services is effective.

1.3 Pro-competitive terms and conditions

1. The Authority identified the following market failures within the wholesale call termination markets:

   a. a lack of the provision of access

   b. the potential for discrimination between licensees offering similar services

   c. a lack of transparency

   d. inefficient pricing

2. The Authority has identified the following pro-competitive terms and conditions to be imposed on all licensees to rectify the above market failures:

   a. Compliance with the provisions of the Interconnection Regulations (Government Gazette No. 33101 of 2010) (Regulation 7(2))

   b. Compliance with the Compliance Manual Regulations to be prescribed by the Authority (Regulation 7(2)),

   c. Charge fair and reasonable prices for wholesale voice call termination consistent with Appendix B ((Regulation 7(2)).

3. Additional pro-competitive terms and conditions to rectify the above market failures are imposed on those licensees with the following characteristics:

   a. Licensees that have historically benefitted from the allocation of more efficient lower band spectrum by the Authority;

   b. Licensees that benefit from economies of scale and scope in maintaining a share of total minutes terminated in the respective markets of greater than 25 per cent as of June 2009.

[1] The draft Call Termination Regulations and the Explanatory Note thereto, as released in GG 33121 on 16 April 2010, are referred to as "GG33121" throughout the remainder of this document.

4. The Authority determines that the following licensees are to comply with the additional pro-competitive terms and conditions:

   a. Market 1 (Regulation 7(4)(a)):

      i. Vodacom

      ii. MTN

   b. Market 2 (Regulation 7(4)(b)):

      i. Telkom

5. The additional pro-competitive terms and conditions to rectify the identified market failures are:

   a. Obligation to develop a reference interconnection offer to facilitate enhanced access and transparency and therefore support Object 2(b) of the ECA which is to facilitate interoperable networks (Regulation 7(5)(a)).

   b. Obligation to charge cost-oriented prices to overcome the market failure of inefficient pricing (Regulation 7(5)(b)):

      i. Market 1:

Table 1: Wholesale voice call termination rates to a mobile location (Market 1)

	Peak	% adjustment	Off-peak	% adjustment
Current rates	R 0.89		R 0.77	
01-Mar-11	R 0.73	-18%	R 0.65	-16%
01-Mar-12	R 0.56	-23%	R 0.52	-20%
01-Mar-13	**R 0.40**	**-29%**	**R 0.40**	**-23%**

      ii. Market 2:

Table 2: Wholesale voice call termination rates to a fixed location (Market 2)

	Within ON geographic area code				Between ON geographic area code			
	Peak	% adj	Off-peak	% adj	Peak	% adj	Off-peak	% adj
Current	R 0.23		R 0.12		R 0.33		R 0.19	
01-Mar-11	R 0.20	-13%	R 0.12	0%	R 0.28	-15%	R 0.19	0%
01-Mar-12	R 0.15	-25%	R 0.12	0%	R 0.25	-11%	R 0.19	0%
01-Mar-13	R 0.12	-20%	R 0.12	0%	R 0.19	-24%	R 0.19	0%

   c. Obligation to comply with Accounting separation and Cost Accounting regulations to be prescribed by the Authority (Regulation 7(5)(c)).

6. All other licensees may charge an asymmetric (higher) termination rate subject to certain conditions. Licensees that do satisfy the set criteria cumulatively may charge an asymmetric rate subject to the table below (see Appendix B):

Table 3: Maximum asymmetric (higher) termination rate a qualifying licensee may charge

	Maximum percentage above rate set for licensees specified in Regulation 7(4)
Current	-
01-Mar-11	20%
01-Mar-12	15%
01-Mar-13	10%

1.4 Conclusions

The Authority expects the imposition of pro-competitive terms and conditions on Markets 1 and 2 to achieve the following:

a. A more efficient and effective access regime;

b. A more dynamic retail pricing environment;

c. Continued access and investment in electronic communications networks in South Africa.

2. Amendments to the draft Call Termination Regulations as released in GG 33121

2.1 Introduction

1. On review of the written, oral and further submissions in respect of GG 33121, the Authority identified the following concerns that required attention:
   - The definition of "fixed call termination"
   - The definition of the relevant market for wholesale call termination
   - Within and Between ON points of interconnection and retail tariffs
   - Evaluation of the effectiveness of competition
   - Identification of proportionate pro-competitive terms and conditions
   - Design of the proposed price control
   - Reference Interconnect Offer
   - Convergence
2. This section provides the Authority's rationale for any amendments made to the draft Call Termination Regulations as released in GG 33121.

2.2 Definition of the market for wholesale voice call termination in South Africa

This section reviews the following:
- The definition of fixed call termination
- The definition of the market for termination:
  - to a mobile location
  - to a fixed location

2.2.1 The definition of fixed call termination service

1. The Authority put forward the following definition for fixed call termination:

   "Fixed call termination" means a wholesale call termination service provided by an electronic communications network services or electronic communications services licensee to a fixed location, and includes licensees providing call termination using VoIP to a fixed location and fixed wireless services (Page 5, GG 33121)

2. A number of licensees raised concerns regarding the inclusion of VoIP services in the definition for "fixed call termination," including Smile Telecoms, Telkom, ISPA and Vox Telecoms.
3. The queries revolved around the inclusion of a specific technology (VoIP) in the definition of a service when that technology could be used to provide both fixed location and mobile location services.
4. The concern regarding reference to a specific technology is noted.
5. The Authority also notes Telkom's query regarding the possible differentiation between fixed (wireline) location services and fixed (wireless/nomadic) services.
6. In practice, the Authority determines that the differentiating feature is whether it is possible for the end-user to maintain an active session, i.e. a voice call during a change in location.
7. Taking the above into account, the Authority amends the definition of fixed call termination service to the following:

   "Fixed voice call termination" means a wholesale voice call termination service provided by an electronic communications network services or electronic communications services licensee to a fixed location, and includes licensees providing termination using fixed wireless services.

2.2.2 Definition of the market for wholesale voice call termination

1. Regulation 3 of the draft Call Termination regulations defined the market as follows:

> "separate wholesale call termination markets on each electronic communications network and electronic communications service licensee in South Africa" (Regulation 3, page 6, GG 33121).

2. The Authority gave more detail on the interpretation of this definition in the explanatory note accompanying the regulations:

> "For the avoidance of doubt, the Authority notes that all licensees that provide wholesale call termination services are included in this market definition. This includes licensees that provide Voice over Internet Protocol (VoIP) services as well as Class ECNS/ECS licensees" (page 48, GG 33121).

3. Stakeholders raised a number of queries regarding the accuracy of the definition given the manner in which call termination services are provided.

4. These queries included concerns as to whether:

   a. termination to a fixed location is in the same market as termination to a mobile location (Telkom);

   b. other termination services, such as SMS and MMS services are, included in the definition of the market (MTN);

   c. the market for termination to a fixed location is too broad, owing to the potential for four wholesale markets existing within the proposed market definition (see pages 5-24 of Neotel's written submission);

   d. the possible existence of different termination rates to different services, particularly Value Added Services (point 46 of ISPA's written submission).

5. The Authority responds to these queries below.

2.2.3 The definition of the market for wholesale voice termination to a fixed location

1. The Authority notes that, in practice, interconnection between two licensees providing termination to a fixed location is characterised by the opportunity for both near-end and far-end handover, whilst interconnection between any licensee and a licensee providing wholesale voice call termination to a mobile location is characterised by near-end handover.
2. The ability to choose between near-end and far-end handover in the provision of wholesale voice call termination services to a fixed location and the importance of this differentiation in fostering infrastructure competition therefore leads to the need for a review of the initial definition as proposed in GG 33121.
3. The product nature of each market segment is the same in that a termination service to a fixed location is provided.
4. However, the geographic boundaries of each segment are different. The geographic boundary for the market for Between Billing Zone (BBZ) wholesale voice call termination to a fixed location is that geographic area outside the geographic area/province code from which a voice call is originated but within the boundaries of the Republic of South Africa, i.e. between the ON geographic area/province codes of the numbering plan.
5. The geographic boundary for the market for Within Billing Zone (WBZ) wholesale voice call termination to a fixed location is that of the defined boundary within the ON geographic area/province codes of the numbering plan.
6. The Authority determines that the definition of the market for wholesale voice call termination to a fixed location consists of two market segments as defined below:
   a. The market segment for wholesale voice call termination to a fixed location within the ON geographic area code of the numbering plan; and
   b. The market segment for wholesale voice call termination to a fixed location between ON geographic area codes of the numbering plan.

2.2.4 Conclusion on the definition of the market

1. The Authority determines that the product and geographic definition of the market for wholesale voice call termination services is dependent on the characteristics of the service as well as the manner in which the service may be provided.
2. The geographic boundary of the market differs based on cost causation and the ability and choice to apply either near-end and/or far-end handover.
3. Therefore, the Authority determines the following definitions of the market and market segments for the provision of wholesale voice call termination services in South Africa:
   a. Market 1: The market for wholesale voice call termination services to a mobile location on the network of each licensee which offers such a service within the Republic of South Africa.
   b. Market 2: The market for wholesale voice call termination services to a fixed location on the network of each licensee which offers such a service within the Republic of South Africa, consisting of:
      i. The market segment for wholesale voice call termination to a fixed location within the ON geographic area code; and
      ii. The market segment for wholesale voice call termination to a fixed location between ON geographic area codes.

2.3 Evaluation of the effectiveness of competition

1. The Authority put forward its provisional conclusion regarding the evaluation of the effectiveness of competition in the relevant markets in Section 2.4 of GG 33121 (page 67).
2. No evidence has been submitted to persuade the Authority that the market for the provision of wholesale voice call termination services in either market is competitive.

2.4 Imposition of pro-competitive terms and conditions

This section outlines the Authority's response to the following matters:

- Imposition of pro-competitive terms and conditions in a proportionate manner
- The design of the price control
- The construction and contents of a Reference Interconnection Offer
- Monitoring reports.

2.4.1 Imposition of pro-competitive terms and conditions in a proportionate manner

1. The Authority outlined its approach to the imposition of pro-competitive terms and conditions to remove any existing market failures, stating that "specific obligations imposed must be based on the nature of the problem identified, and must be proportionate and justified" (page 73 of GG 33121).
2. The Authority stated that the following pro-competitive terms and conditions might to be imposed:
   a. Pro-competitive terms and conditions to be imposed on all licensees in the wholesale call termination market:
      i. Access, transparency and non-discrimination obligations: These obligations already form part of the regulatory regime for all licensees under Section 37 of the ECA (Regulation 7 and Section 3.4.3.2 of GG 33121)
      ii. Obligation to maintain and submit reports to the Authority (Regulation 11 and Section 3.5.2 of GG 33121)
      iii. An obligation to charge fair and reasonable prices (Regulation 8(2) and page 79 of GG 33121).
   b. Pro-competitive terms and conditions to be imposed on those licensees with "Established Significant Market Power" (Regulation 6(2) of GG 33121)
      i. Obligation to publish a reference interconnection offer (Regulation 8 and page 77 of GG 33121)
      ii. A specific price control obligation (Regulation 9(1) and page 78 of GG 33121),
      iii. Accounting separation and cost accounting obligation (Regulation 10 and page 83 of GG 33121).
3. The Authority proposed these pro-competitive terms and conditions based on the need to correct the following identified market failures:
   a. a lack of the provision of access
   b. the potential for discrimination between licensees offering similar services
   c. a lack of transparency
   d. inefficient pricing

4. The Authority notes the concerns raised regarding the use of the terminology "Established Significant Market Power" as well as the request for greater clarity on how compliance with specific remedies is to be linked with overcoming the identified market failures.

5. The Authority has amended its criteria for the classification of licensees for the imposition of pro-competitive terms and conditions according to specific behavioural and structural characteristics of licensees.

6. The Authority determines that additional pro-competitive terms and conditions are to be imposed on those licensees that, from an ex ante approach, have countervailing bargaining power[2], and therefore maintain the greatest potential to leverage off the identified market failures. The Authority has determined that licensees with the following characteristics are likely to be able to act in such a way:

   a. Licensees that have historically benefitted from the allocation of more efficient lower band spectrum by the Authority;

   b. Licensees that benefit from economies of scale and scope in maintaining a share of total minutes terminated in the respective market of greater than 25 per cent as of June 2009 (see Tables 2.3 and 2.4 of GG 33121 on pages 55 and 56 respectively).

7. Vertical integration is not deemed to be a category for qualification for asymmetric regulation because of the non-discrimination requirements of sections 37(6) and 43(7) of the ECA, which refer to interconnection and facilities leasing services.

8. Only those licensees declared to benefit from the above characteristics are to face additional pro-competitive terms and conditions that are necessary to correct the identified market failure.

9. The following licensees are to comply with additional pro-competitive terms and conditions in relation to Market 1:

   a. **Vodacom**: Vodacom has historically benefitted from the allocation of more efficient lower band spectrum and has maintained a share of total minutes terminated in Market 1 of greater than 25 per cent as of June 2009. These characteristics afford Vodacom sufficient countervailing bargaining power to influence termination rates in other markets.

   b. **MTN**: MTN has historically benefitted from the allocation of more efficient lower band spectrum and has maintained a share of total minutes terminated in Market 1 of greater than 25 per cent as of June 2009. These characteristics afford MTN sufficient countervailing bargaining power to influence termination rates in other markets.

10. The following licensee is to comply with additional pro-competitive terms and conditions in relation to Market 2:

    a. **Telkom**: Telkom has benefitted from preferential access to spectrum owing to its historical ownership structure and has maintained a share of total minutes terminated in Market 2 of greater than 25 per cent as of June 2009. These characteristics afford Telkom sufficient countervailing bargaining power to influence termination rates in other markets.

2.4.2 The design of a price control

1. The Authority re-iterates its position that the provision of wholesale voice call termination services, irrespective of location, is a bottleneck service, allowing a licensee

[2] Countervailing bargaining power exists when a particular purchaser (or purchaser group) of a product is sufficiently important to its supplier to influence the price charged for that product.

"to set the price for call termination above competitive levels"[3].

2. The objective of the imposition of a price control for the provision of wholesale voice call termination services remains as stated in GG 33121:

   "The Authority seeks to ensure that prices and margins are reduced to a level that covers the cost of efficiently incurred capital, as would be the case in a competitive market."[4]

3. The following factors affect the design of a price control to compensate for the lack of effective competition:

   a. Non-discrimination: In upholding the non-discrimination principle of section 37(6) of the ECA as well as Regulation 10 of the Interconnection Regulations (GG 33101), [5] a licensee is to charge wholesale voice call termination rates based on the cost incurred to terminate a voice call on its network **irrespective of whether the source of the traffic stems from a mobile or fixed location.**

   b. A flat versus peak/off-peak differential for termination rates:

      i. The Authority put forward its view that wholesale voice call termination should be charged at one rate, irrespective of time (Page 92 of GG 33121).

      ii. Cell C supported this approach, whilst MTN, Telkom and Vodacom disputed the imposition of a single rate for wholesale voice call termination.

      iii. The Authority's view is that an efficient network should be dimensioned based on the maximum traffic expected at any given time. Furthermore, in one-on-one meetings with licensees it was acknowledged that the peak/off-peak termination rate structure has little impact on the nature of calling patterns of end-users. End-user calling patterns are dictated by socio-economic and cultural factors. The retail pricing strategies of licensees seek to exploit these characteristics by introducing packages to stimulate increased traffic, for example, over weekends.

      iv. The Authority maintains its view that wholesale voice call termination services are to be charged at one rate and that flexibility in the management of traffic may be achieved through the pricing of services in the retail market.

      v. For purposes of call termination, peak calling hours are defined as calling hours from Monday to Friday 07H00 to 20H00.

      vi. Off peak call hours are defined as all hours other than the peak rate group hours.

2.4.3 The design of a glide-path towards the efficient level for Market 1

1. MTN, Vodacom and Cell C all voiced the following concerns:

   a. Interconnection must be financially and economically feasible as per section 37(3)(a) of the ECA;

   b. The implementation of the rate cut should be deferred to 1 March 2011;

   c. The degree of change per year should be smoothed out to reduce substantial shocks to the industry;

   d. Inflation should be considered when implementing a price control.

[3] Page 57 of the Explanatory Note to the Draft Call Termination Regulations, GG 33121
[4] Page 51 of the Explanatory Note to the Draft Call Termination Regulations, GG 33121
[5] GG 33252, 31 May 2010

2. Furthermore, MTN and Vodacom requested that if the Authority is to maintain its position on a single rate, that the rate be introduced over time to minimise any shocks to existing business models (page 22 and 7 of written submissions respectively).

3. The Authority acknowledges that a change in the wholesale pricing regime from a two-tier to a single-tier termination rate regime may have an impact on the business structure of all licensees, including those involved in independent downstream retail services.

4. Regarding inflation, the Authority expects licensees to compensate for reasonable inflationary pressures through internal efficiency gains. The Authority determines that reasonable inflationary pressures are inflationary pressures within the inflation target band of 3-6 per cent as set by the South African Reserve Bank.

5. The Authority will consider amending the termination rate to be charged in March 2014, should the Consumer Price Index reflect an increase in inflation above the inflation target band.

6. The Authority has determined that it is necessary to minimise the shock of a reduction in termination rates to provide adequate time for licensees and their re-sellers to review their distribution agreements.

7. Therefore the Authority determines the following termination rate glide path applicable to those licensees identified in Regulation 7(5)(b)(i):

Table 4: Wholesale voice call termination rates to a mobile location (Market 1)

	Peak	% adjustment	Off-peak	% adjustment
Current rates	R 0.89		R 0.77	
01-Mar-11	R 0.73	-18%	R 0.65	-16%
01-Mar-12	R 0.56	-23%	R 0.52	-20%
01-Mar-13	**R 0.40**	**-29%**	**R 0.40**	**-23%**

8. The intention is for the Authority to review the above rates for amendment after 01 March 2014.

2.4.4 The design of a glide-path towards the efficient level for Market 2

1. The Authority proposed that the cost of termination on Telkom's network should be R 0.10 (Regulation 9(1)(b) of GG 33121).

2. Telkom disputed the proposed R 0.10 rate in its written submission, stating the following: "FTR should be set at ZAR 0.37 and adjusted over time in line with changes to the costs of the access deficit" (page 64 of the Telkom submission to the draft regulations).

3. Telkom proposed this figure based largely on the existence of an access line deficit, in part created by universal service obligations (listed on page 60 of the Telkom submission).

4. The ITU and the European Commission have stated the following regarding the inclusion of access line costs in the derivation of a cost-oriented rate for interconnection:

> *"[Access] lines are considered as customer dedicated, therefore, all related expenses should be recovered either by rental, one-off purchase, or other arrangements that would not impact the cost of interconnection on the core network" (ITU, 2003, page 2)*[6]

and

[6] ITU document reference: GR TAL – C 3 – E, www.itu.int/itudoc/itu-t/tal/cost-od/84386_ww9.doc

"since the provision of interconnection does not lead to any increase of costs in the dedicated components of the local loop of the terminating network, the calculation of interconnection charges should not include any component relating to the direct cost of the subscriber-dedicated components of the local loop" (Commission recommendation 98/195/EC, page 73/46).

5. The World Bank[7] has stated the following regarding the provision of interconnection services:

   "Considering the example of interconnection services, it is important to underscore the following three conclusions:

   - *The provision of interconnection services does not modify the retail sales service, as the latter only concerns sales to final subscribers.*
   - *The provision of interconnection services does not modify the access service, as the capacity implemented and its maintenance do not have to be adjusted to bear the flow of this additional traffic.*
   - *In contrast, transport services are affected by the traffic resulting from interconnection services.*

   As a result, the cost of access services must be covered by retail service revenues. Unless these services rates are rebalanced, there are risks for anticompetitive practices and cream skimming. In other words, market deregulation imposes a certain cost orientation for dominant operators' tariffs, and, consequently, implies a price restructuring that eliminates the largest existing pricing averaging."

6. This is consistent with the allocation of costs as specified in volume 3 of the Chart of Accounts and Cost Allocation Manual (GG 23632).
7. The Authority therefore determines the following:
   a. Universal service obligations[8] are not to form part of a determination on termination rates for commercial services. These matters are dealt with through separate regulatory processes.
   b. Access costs are to be borne by the consumer.
   c. Licensees have the freedom to adjust any retail tariffs.
8. Taking into account the revised definition of the market for termination to a fixed location, whilst including an incentive for investment in fixed location infrastructure, the Authority imposes the following termination rates to a fixed location to be levied by those licensees listed in Regulation 7(5)(b)(ii):

Table 5: Wholesale voice call termination rates to a fixed location (Market 2)

	Within ON geographic area code				Between ON geographic area code			
	Peak	% adj	Off-peak	% adj	Peak	% adj	Off-peak	% adj
Current	R 0.23		R 0.12		R 0.33		R 0.19	
01-Mar-11	R 0.20	-13%	R 0.12	0%	R 0.28	-15%	R 0.19	0%
01-Mar-12	R 0.15	-25%	R 0.12	0%	R 0.25	-11%	R 0.19	0%
01-Mar-13	R 0.12	-20%	R 0.12	0%	R 0.19	-24%	R 0.19	0%

[7] See page 24 of "A Model for calculating Interconnection Costs in Telecommunications" 2004. Available at: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2004/03/04/000090341_20040304155451/Rendered/PDF/280390PAPER0Model0for0calculating0costs.pdf

[8] Including termination rates to community service telephones

9. The Authority is of the view that the above rates provide for an investment incentive to support further network investment by new entrants as well as provide adequate revenue generation for existing licensees to retain and maintain investments.

10. The intention is for the Authority to review the above rates for amendment after 01 March 2014.

2.4.5 Fair and reasonable rates, symmetry and the case for asymmetry

1. The objective of regulating specific voice call termination rates is to ensure that these rates are set at an "efficient level" (GG 33121: 69).
2. The Authority indicated its preference for symmetrical prices for similar services in GG 33121 and re-iterates its position here.
3. However, the Authority notes international arguments both for and against asymmetry as well as those points raised during the public consultation process.
4. The Authority determines that the application of asymmetric rates for a transitory period will benefit total social welfare by stimulating increased competition in the respective markets, thereby benefiting end-users.
5. However, asymmetric (higher) termination rates may only be justified on certain criteria to ensure that only those licensees that are dedicated to the goal of reducing retail prices through competitive forces qualify for such asymmetry.
6. Therefore the Authority has determined that the following criteria apply when a licensee considers whether it may qualify for an asymmetric rate:
   a. Spectrum allocation: The allocation of spectrum is a factor controlled by the Regulator, not the licensee. The Authority determines that licensees who are able to quantitatively show a prejudiced impact on cost based on the allocation of spectrum may qualify for an asymmetric (higher) termination rate.
   b. Economies of scale and scope: The Authority determines that a licensee may choose to apply an asymmetric rate under the following conditions:
      i. The licensee is an I-ECS licence holder with a share of total minutes terminated in the respective market of less than 25 per cent as of June 2009 (see Tables 2.3 and 2.4 of GG 33121 on pages 55 and 56 respectively);
      ii. All I-ECNS licensees who lease electronic communications facilities are bound by the principle of non-discrimination in Regulation 10(3) of the Interconnection Regulations and Regulation 9(3) of the Electronic Communications Facilities Leasing Regulations.
7. A licensee may qualify for an asymmetric rate if either or both factors are applicable..
8. The Authority determines that it is necessary to limit and reduce the amount of asymmetry a qualifying licensee may charge, to ensure that investment by new entrants is efficient.

9. The Authority therefore imposes the following limits which a qualifying licensee may charge:

Table 6: Maximum asymmetric (higher) termination rate a qualifying licensee may charge

	Maximum percentage above rate set for licensees specified in Regulation 7(2)
Current	-
01-Mar-11	20%
01-Mar-12	15%
01-Mar-13	10%

2.4.6 Requirement to develop a reference interconnection offer

1. The Authority stated that those licensees listed in Regulation 6(2) of GG 33121 must develop a reference interconnection offer ("RIO").
2. Vodacom proposed that all licensees be required to develop a RIO (page 22 of Vodacom's written submission).
3. The Authority determines that it is not necessary for all licensees to develop a RIO and only those licensees identified in Regulation 7(5)(a) are required to comply with the submission of a RIO to the Authority for review.
4. Licensees also raised concerns about the maximum time period of 15 days required to complete an interconnection agreement (Regulation 8(7) of GG 33121).
5. The Authority accepts that certain interconnection agreements may require "non-standard" features.
6. However, given a typical circumstance where standard procedures are to be followed, using the same points of interconnect already in use by other licensees, or through a hosting centre, the Authority sees no reason why an interconnection agreement cannot be concluded within 15 days from a technical perspective.
7. Regarding commercial concerns, the Authority expects interconnection providers to be able to conduct any credit vetting procedures within the 15 days.
8. Therefore, the Authority is of the view that the only reasons why an interconnection agreement cannot be concluded within 15 days are the following:
   a. The interconnection seeker fails to provide relevant information regarding technical requirements;
   b. The interconnection seeker fails to provide relevant information regarding commercial requirements for surety regarding bank guarantees.
9. Therefore, a delay in completing an interconnection agreement within 15 days may only be a result of delays caused by the interconnection seeker.
10. The Authority will review RIOs submitted to it under Regulation 7(5)(a).
11. The Authority will particularly focus on the following components of a RIO:
    a. The terms and conditions regarding bank guarantees:
       i. The role of a bank guarantee is to ensure that an interconnection provider is not prejudiced if an interconnection seeker is unable to pay the due termination revenue at the end of each billing period.
       ii. Excessively high bank guarantees may represent an implicit refusal to deal in which event an interconnection provider may foreclose entry to a new entrant or interconnection seeker.

iii. The Authority has concerns regarding the high level of bank guarantees charged historically as well as the terms included in existing interconnection agreements, such as the "unconditional right to increase a bank guarantee".

iv. An interconnection agreement is an agreement between two parties that is required to include terms and conditions that not only comply with the obligation to interconnect (section 37(1) of the ECA), but also foster a fair and non-discriminatory access regime.

v. The Authority has on several occasions informed licensees of its concerns regarding the inclusion of an "unconditional right to increase a bank guarantee".

vi. The Authority determines that bank guarantees, if necessary, must be based on objective and transparent criteria.

vii. Furthermore, where a bank guarantee is agreed-upon, each party to an interconnection agreement is to be afforded the right to request and review the level of any guarantee conditions based on good cause shown.

viii. The Authority determines that the **upper limit to the value of any bank guarantee in a RIO is the value of three months forecast terminating traffic.**

ix. The Authority determines that the above position ensures that no party to any interconnection agreement with any licensee experiences any discrimination.

b. The terms and conditions regarding minimum traffic/revenue requirements:

i. The objective role of a minimum traffic guarantee is to ensure that the interconnection provider does not suffer any prejudicial investment cost in terms of the creation of a "stranded asset", i.e. the expenditure incurred in establishing the point of interconnection is not recovered from revenue received from the interconnection seeker.

ii. However, excessively high minimum traffic/revenue requirements may also represent implicit market foreclosure as discussed regarding excessively high bank guarantees.

iii. If a minimum traffic/revenue requirement is to be included in a RIO, justification for such must be provided.

c. Signalling protocols:

i. Traditionally, South African licensees have provided interconnection exclusively on a TDM-basis, requiring any interconnection seeker to convert traffic to and from their network into the requisite standard as set by the interconnection provider, and cover the costs thereof (e.g. conversion to SS7).

ii. This practice is fair and reasonable and justified if the interconnection provider uses the same protocols for transport within its network.

iii. However, if the interconnection provider manages its internal network traffic through another protocol, such as SIP, then it would be discriminatory for the interconnection provider not to provide the opportunity for an interconnection seeker to interconnect using such a signalling protocol.

d. Points of Interconnection:

i. It may not be necessary for interconnecting parties to have a direct interconnection link.

ii. Licensees should consider the approach of an open connection point where all licensees who seek to interconnect may do so, e.g. through the use of a hosting centre or "interconnection hotel."

iii. In this scenario, the Authority expects each licensee to provide/pay for its own point of interconnection link, removing the "stranded asset concern", thereby removing the need for any minimum traffic guarantee.

2.4.7 Monitoring Reports

The Authority has reviewed the concerns raised by licensees and has determined that such information is to be included in the Compliance Procedures Manual.

2.5 Within and Between ON geographic area codes, points of interconnection and retail tariffs

1. The Authority is aware that certain licensees charge their customers a set off-net retail fee regardless of the geographic source and destination of an off-net call. This retail pricing practice ignores the cost causation principle in carrying traffic from one location to another.
2. Although the Authority has no intention of specifically regulating retail services at this juncture, the Authority requires all licensees to review the structure of their retail tariffs such that the retail fee charged for off-net calls reflects the characteristics of points of interconnection and the applicable charges for termination between licensees.
3. The Authority is also aware that it may be financially and technically feasible for points of interconnection to take place between Telkom and any other licensee at levels at the ONN level of Telkom's network. Such a point of interconnection was envisaged in the Telkom/Neotel interconnection agreement signed in 2007.
4. The Authority understands that this may not be possible at all geographic locations, but a request for such a point of interconnection may not be refused in those geographic areas where it is possible, as governed by section 37 of the ECA and the Interconnection Regulations (GG 33101).

2.6 Retention rates

1. The Authority is aware of concerns regarding retention rates, particularly ECN Telecommunication's complaint lodged against Telkom at the Competition Commission of South Africa on the 16th of October 2009.
2. The Authority will closely monitor any response by licensees to the introduction of asymmetric termination rates and whether any increase to the retail price of an off-net call occurs.
3. The Authority is also aware of the practice of having specific charges for "call set-up" costs, i.e. a retail fee that is charged independently of usage.
4. This feature of retail pricing has been regulated in other jurisdictions.[9]
5. The Authority will also monitor this feature of retail pricing diligently over the next three years.

[9] http://www.opta.nl/nl/actueel/alle-publicaties/publicatie/?id=3224

2.7 Convergence

1. The Authority notes the points raised by stakeholders as well as observable trends in certain jurisdictions tending towards lower and converging mobile and fixed termination rates and will monitor these trends during the review period.
2. However, for the period 2011 to 2014, the Authority does not consider that technological convergence equates to convergence of the cost to terminate a call to a mobile compared to a fixed location.

3. The Authority's expectations

The Authority expects the imposition of pro-competitive terms and conditions on Markets 1 and 2 to achieve the following:

a. A more efficient and effective access regime;

b. A more dynamic retail pricing environment; and

c. Continued access and investment in electronic communications networks in South Africa.

3.1 A more efficient and effective access regime

1. The aim of the RIO is to remove any potential imbalance between licensees when commercially negotiating interconnection agreements. Furthermore, the Authority expects such interconnection agreements that are concluded to foster the efficient use of networks, i.e. stimulating the use of transit services or hosting arrangements where many licensees may interconnect with each other at a few distinct geographic locations.
2. The Authority expects the following to be visible outcomes of the imposition of the RIO obligation:

   a. Reduced timeframes for concluding interconnection agreements;

   b. Reduced and justifiable non-price obligations on both parties to an interconnection agreement;

   c. More efficient use of networks through the use of transit services and specific hosting centres.
3. The Authority expects the impact of the above to lead to a reduction in the input costs for points of interconnection (both in time and infrastructure) thereby reducing the cost burden on existing and new entrants alike. The Authority expects the following feed-through impact to be:

   a. A greater number of licensees considering entering the retail voice services market;

   b. An increase in volumes of traffic between networks; and

   c. More competitive retail price offerings, particularly in the offering of retail voice services to a fixed location.

3.2 A more dynamic retail pricing environment through a reduction in wholesale voice call termination rates

1. The retail price environment is where licensees are able to leverage off their economies of scale and scope as well as the ability to set prices for other licensees in terms of the price offered to end-users for off-net calls.
2. A reduction in termination rates does not necessarily feed through directly to a reduction in retail rates.
3. The objective of reducing wholesale voice call termination rates is to reduce the barrier to entry in the provision of off-net calls thereby fostering competition and a dynamic reduction in retail prices over time.
4. The Authority expects the following to be visible outcomes of a reduction in wholesale voice call termination rates:
   a. A reduction in the barriers to entry for competitors in competing for a broader spectrum of the retail market, i.e. smaller licensees are expected to move away from a pure niche retail market focus towards greater overall participation in the provision of services to all consumers;
   b. A reduction in the price charged to an end-user for a voice call placed from a fixed location to a mobile location; and
   c. An increase in dynamic pricing packages for voice calls between networks of licensees who offer termination to a mobile location.
5. The Authority expects the impact of the above to be the following:
   a. An increase in the level of competition in the provision of retail services to end-users at a fixed location;
   b. A reduction in the price of a call from a fixed to a mobile location; and
   c. A reduction in the price of a call from a mobile location to both mobile and fixed locations **over time** as licensees adjust to greater competitive pressures.

3.3 Continued access and investment in electronic communications networks in South Africa

The Authority's determinations are considered to be suitable for fostering competition as well as ensuring the correct incentives for long-term sustainable investments in enhancing geographic coverage and penetration for all services.

4. Conclusions

1. As stated by stakeholders[10], the regulation of termination rates in South Africa has been benign. This benign environment allowed for both the diffusion and geographic availability of a multitude of services, notably mobile telephony services.

2. However, it is now time for all South Africans to benefit from the existence of the past benign environment. The Authority now believes it necessary for termination rates to be lowered to foster competition and allow the benefits of the past regime to flow through to end-users, ultimately in lower retail prices.

3. The Authority will vigilantly monitor all trends to ensure that the implementation of the pro-competitive terms and conditions imposed in these regulations takes place quickly and without any infraction.

[10] See, for example, page 7 of the transcripts of the public hearings on the draft Call Termination Regulations held on the 28th of June 2010.