

THE IMPACT OF REGULATION ON COMPETITION IN TELECOMMUNICATIONS AND PIPED GAS

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ABSTRACT

This article examines the *ex ante* powers to regulate competition bestowed on the Independent Communications Authority of South Africa (ICASA) in terms of the Electronic Communications Act, Act No 36 of 2005 (ECA) and on the National Energy Regulator of South Africa (NERSA) in terms of the Gas Act, Act No 48 of 2001 (Gas Act) and the regulators' recent exercise of these powers to regulate prices in the mobile telecommunications and piped gas industries. Since 1999, the South African competition law authorities have focused on the reactive or *ex post* exercise of their statutory powers in terms of competition legislation, in order to detect and prosecute anti-competitive behaviour. This includes industries regulated by another sector regulator such as in the electronic communications sector (ICASA) and in the piped gas sector (NERSA). Several complaints against dominant suppliers in these industries have been successfully prosecuted in terms of the Competition Act, Act No 89 of 1998 (Competition Act). There have been far fewer efforts by the sector regulators to proactively exercise their *ex ante* regulatory powers in order to create a market structure and conditions that facilitate competition in the sectors that they regulate.

In this article, we examine the recent exercise of powers by ICASA and NERSA in the mobile and piped gas industries. We conclude that the provisions of the ECA have facilitated (i) the identification and analysis of relevant markets lacking in adequate competition and (ii) the promulgation of regulation that is needed to develop a more competitive environment in due course. However, ICASA's process in exercising its statutory powers has been slow and has suffered from various deficiencies. On the other hand, the analysis indicates that the legislation governing NERSA's *ex ante* powers, and the way in which NERSA has enforced that legislation, has led to counter-productive regulation, which has hindered competition in the sector. Accordingly amendments to the Gas Act are required. Amendments effected to the ECA retain guidance to the regulator on how to conduct a market review, but the regulator should exercise these powers more often.

KEYWORDS

competition analysis, competition regulation, market reviews, *ex ante* regulation, *ex post* regulation, telecommunications sector, piped gas sector, South Africa

INTRODUCTION

In South Africa, as in many African countries, certain sectors of the economy suffer from market failure as a result of the existence of monopolies, or because of state-sanctioned market structures. As governments aim to liberalise these sectors, regulators are often granted powers to ensure that such industries become competitive. The telecommunications and gas sectors (and the energy sectors generally) are two such industries that typically require *ex ante* regulatory intervention to create the conditions for competitiveness to thrive. The facilitation of competition in the telecommunications industry is fundamental to decreasing the costs of communication, with fundamental knock-on impacts on the economy as whole. In the piped gas sector, dominated by a previously state-owned enterprise, lessons from *ex ante* regulation should be applied to the energy sector as a whole, where there is increasing introduction of private sector participation, as well as competitive energy sources.

Therefore, this analysis of the extent to which two regulatory authorities utilise recognised competition techniques holds lessons for future *ex ante* regulation of infrastructure sectors in South Africa and in Africa generally. Furthermore, it is interesting to contrast the ICASA mobile termination rate (MTR) regulation with the exercise of NERSA's *ex ante* regulatory powers in the piped gas sector, because the legislative guidance provided in the Gas Act is far less prescriptive than that in the ECA regarding the approach to *ex ante* regulation to be followed. The outcome of the comparison between the authorities' regulatory approaches illustrates that legislative guidance is necessary to ensure appropriate regulation.

REGULATING TO FOSTER COMPETITION – *EX ANTE* VERSUS *EX POST*

Ex ante regulation refers to explicit market intervention by the regulator 'before the fact', in other words regulation in order to establish conditions within the industry so as to ensure that the relevant market functions optimally. *Ex post* regulation refers to the opposite situation, where no explicit market intervention is performed, but the regulator will detect and investigate alleged prohibited practices within any industry or sector and, if necessary, punish or remedy any identified unlawful conduct (De Streel, 2008).

Competition policy generally involves determining the principles that should govern the *ex ante* regulation of markets. In addition, there is a significant amount of *ex ante* regulatory power often granted to competition authorities, for instance in the case of assessing mergers or the power to conduct market enquiries, that involves identifying market failures rather than the wrongdoing of any particular player in a market (Theron & Binge, 2014). Motta (2004, p.xviii) explains that the term competition policy 'applies to sectors where structural conditions are compatible with a normal functioning of competition (whether the market functions well in practice or not is

another matter).’ In markets where competition is evident or able to develop, competition policy can be applied to address the anti-competitive behaviour of firms.

Economic regulation has to be applied as a regulatory response to inappropriate use of monopoly power and other phenomena that result in outright market failure (Joskow, 2007). Economic regulation is applied *ex ante* and requires long-run, continuous involvement on the part of the regulator for purposes of conducting monitoring and ensuring compliance (Moodaliyar & Weeks, 2009). On the other hand, competition regulatory interventions are meant to address anti-competitive conduct in markets that would otherwise tend towards effective competition and are applied *ex post* (Buiges, 2006).

In instances where there is already a general competition law applicable to all sectors, there is sometimes still a justifiable basis for sectoral regulation designed to promote competition. This is the case in sectors that are just being exposed to competition, where competition cannot yet work and where there is a need to monitor the gradual development of competitive forces. Accordingly, *ex ante* regulation may be required in instances where there are substantial barriers to market entry, no visible trends towards the development of competition, or the *ex post* interventions provided for in general competition law are unable to guarantee competitive structures.

In South Africa, certain sector regulators are explicitly granted the power to examine the state of competition in markets within their sector and, where they find that competition is weak, to address this through appropriate regulation. For instance, in terms of the Gas Act, 2001, NERSA is required to regulate pricing in the industry ‘*where there is inadequate competition*’ (RSA, 2001, Section 21(1)(p)). Similarly, Chapter 10 of the Electronic Communications Act, 2005 (RSA, 2005), provides that the Authority (ICASA) must, following an inquiry, prescribe regulations defining the relevant markets and market segments and impose appropriate and sufficient pro-competitive licence conditions on licensees where there is ineffective competition, and if any licensee has significant market power in such markets or market segments.

These provisions raise a key issue, also highlighted by Moodaliyar and Weeks (2009, p.4) that ‘an important area of convergence between economic regulation and competition policy is in the application of competition analysis for purposes of diagnosing the market power problem and identifying appropriate remedies’. In other words, where sector regulators are given powers to intervene in the market, and the goal of such intervention is to facilitate a competitive environment, it is important that those regulators apply competition analysis to assess their markets and to identify the interventions that are necessary.

In the telecommunications industry, the costs of investing in networks to provide telecommunications services are substantial. As a result, late or new entrants into the industry can face years of operation without covering the costs of these investments. Such disadvantage tends to create a vicious cycle of lack of profitability and investment, and therefore an inability to grow and offer real competition to incumbent network operators. Such an industry is therefore one where *ex ante* regulation is required to provide new entrants a ‘leg-up’ so that they can eventually sustain a competitive environment. Similarly, the piped gas sector also requires such intensive investment. The existing monopoly structure, combined with limited available supply, make it an industry where competition is unlikely to break out naturally without the intervention of regulation. Moreover, in both the telecommunications and piped gas industries, access to infrastructure is necessary to enable other operators to act as competitors, which makes these sectors ripe for *ex ante* regulation. *Ex ante* competition regulation is broadly applicable to the telecoms and piped gas sectors across the African continent, as countries aim to increase their infrastructure and service capacity to underpin future economic development.

THE ROLE OF THE INDEPENDENT COMMUNICATIONS REGULATOR IN PROMOTING COMPETITION

The legislation governing the telecommunications sector was initially the Telecommunications Act 103 of 1996. A significant development, when the Telecommunications Act was replaced by the ECA, was the introduction of the regulatory powers in section 67(4) to section 67(8) of the ECA. These sections adopted the approach to economic regulation introduced in Europe a few years previously, that advised the use of competition analysis when engaging in economic regulation (Moodaliyar & Weeks, 2009). Guidance adopted by the European Parliament noted that economic regulation of electronic communications sectors should consider three concepts (ICN, 2004, p.37): (1) The proportionality of the regulatory intervention to the competition problem (stronger intervention where markets are not competitive, lighter intervention or withdrawal of regulation where markets are becoming competitive); (2) application of competition analysis principles to defining the market, assessing market power and formulating remedies; (3) analysis of products and markets on the basis of economic value rather than on their physical, technological or regulatory characteristics.

Adopting this approach, section 67(4) requires ICASA to apply competition law principles to identify market power problems. In terms of this section, ICASA must define relevant markets and market segments. It must then determine whether there is effective competition in those relevant markets and market segments. It must determine which, if any, licensees have significant market power (SMP) and then impose appropriate pro-competitive licence conditions on those licensees having SMP in order to remedy the identified market failure. The section also requires ICASA to undertake periodic review of the relevant markets.

The provisions set out next reflect the ECA subsequent to amendment in 2014. Section 67(4A) provides guidance on how to evaluate whether there is ineffective competition. It requires that ICASA must consider, among other things, barriers to entry, relative market shares of the various licensees, and the relative market power of the licensees. Section 67(4) and section 67(4)(d) note that the pro-competitive conditions applied after this assessment must be 'appropriate', 'sufficient' and must 'remedy' the market failures in the markets found to have ineffective competition. Section 67(8) then provides for a review of the pro-competitive conditions, which requires a review of the market determinations made and a determination of whether the licensees to whom pro-competitive conditions apply, still possess SMP. It also requires an assessment of whether the pro-competitive conditions previously applied are proportional, or whether they need to be modified to ensure proportionality.

The key components of the new section 67 namely, the need to define the market, determine SMP, determine the effectiveness of competition (regulating where necessary to address ineffective competition), are essentially the same as prior to the amendment. It is, however, notable that the amendments have removed some of the more prescriptive guidance provided to ICASA when undertaking these assessments. In particular, section 67, prior to amendment, had provided that when assessing whether a market has effective competition or not, ICASA's 'forward looking assessment of the market power of each of the market participants' must take into account not only barriers to entry and relative market shares and market power, but also (RSA, 2005, Section 67(6)(b)(ii)(aa-kk)): existence of competitors; concentration and collusion; control of essential facilities; technological advantages or superiority; the degree of countervailing power; access to capital markets and financial resources; characteristics of the market, including growth, innovation, and diversification; economies of scale and scope; and vertical integration.

The above components of a competition law analysis were in place when ICASA first reviewed and regulated interconnection rates.

MOBILE INTERCONNECTION RATE REGULATION BY ICASA

'Interconnection' in electronic communication sectors is the linking of fixed and mobile networks to one another. In the case of voice calls, for example, when a subscriber of one network (MTN) calls a subscriber of another network (Cell C), it will be necessary for MTN and Cell C to interconnect their networks. It is common practice for the network that receives ('terminates') the call to charge a fee to the network that sends ('originates') the call. In mobile electronic communications, the fee is referred to as the mobile termination rate (MTR) and in fixed electronic communications, the fixed termination rate (FTR).

Interconnection is a critical part of the operation of the electronic communications sector, whereby operators enable their subscribers to call other subscribers on other networks. However, in instances where there is market failure, incumbent operators can use interconnection to aggravate the effects of such market failure (Vogelsang, 2003). In particular, incumbents can charge new or late entrants high interconnection rates in order to entrench existing market power and ward off competition. High interconnection rates is a strategy that can be employed by the incumbent operators to exacerbate this effect, because a new entrant will inevitably have to pay more for termination than it receives (Tye & Lapuerta, 1996). It works because scale is such an important requirement to enable a player to compete in the telecommunications space – new entrants must provide national coverage at a high quality and reasonable price, together with other value-added services. Thus a new entrant's total investment and operator costs will be almost as high as those of existing operators. They also earn less revenue and therefore have smaller economies of scale, because their ability to attract and retain new subscribers is limited. Incumbents tend to have easier access to capital markets, large subscriber communities, on-going subscriber contractual commitments and sunk costs advantages. This can eliminate the likelihood of an entrant gaining sufficient scale to compete effectively. Without regulatory intervention, a smaller operator on its own is unable to achieve reasonable scale in this environment.

For these reasons, several jurisdictions, including New Zealand, the European Union, Botswana and India have empowered their regulators to regulate interconnection rates (OECD, 2012; Dewenter & Jörn, 2010; Lazauskaite, 2009; ITU, 2003). In some instances, such as in Botswana, Brazil, Mexico and the Philippines, rates are set by regulation (generally at a level that reflects the cost of termination), and there are also rate re-balancing interventions, in particular, the setting of 'asymmetric interconnection rates', that enable smaller operators to charge higher interconnection rates to their larger competitors (Kalba, 2008; Dymond, 2004). This intervention can be justified on numerous bases, but primarily because there is frequently a positive relationship between market share and cost differences. Smaller operators with much higher costs will experience disproportionate difficulty in reducing their interconnection rates. Accordingly, such asymmetry may support the growth of a small entrant who suffers from a lack of scale due to late market entry.

The historical position in South Africa provides an illustration of the use of interconnection rates to stymie the ability of new entrants to compete in the market. When Vodacom and MTN entered the South African market in 1994 and 1995 respectively, they were given the benefit of an asymmetrical interconnection rate with the then dominant fixed operator, Telkom. At that stage, Telkom, Vodacom and MTN were the only three telecommunications operators in the market, and Telkom was the largest incumbent. The ability to charge Telkom a higher rate for termination contributed to MTN and Vodacom's ability to grow their businesses and obtain the necessary scale benefits.

By the time Cell C launched in 2002, the mobile telecommunications industry had grown far beyond expectation and the large incumbents, MTN and Vodacom, held significant market power in the retail space. When Cell C entered, it also benefited from asymmetry with Telkom, but ICASA did not at that time regulate mobile termination rates. In fact, in anticipation of Cell C's entry to the market, Vodacom and MTN increased interconnection rates by over 500% a few weeks before Cell C was set to open its business (Theron & Binge, 2014). Vodacom and MTN operated without regulatory scrutiny until ICASA finally regulated mobile termination rates in 2010, a period of 17 and 16 years respectively. This severely restricted Cell C's ability to compete vigorously and enabled Vodacom and MTN to continue to grow scale and profitability.

Thus, the regulation of interconnection rates in South Africa has been an area well suited to *ex ante* economic regulation. ICASA is granted explicit powers to regulate interconnection under Chapters 7 and 10 of the ECA. However, ICASA had not exercised this power at the time that Cell C entered the market. By 2006/7, ICASA acknowledged that there was significant market failure within the industry, reflected through extremely high mobile call termination and retail rates, and a continued distortion in the relative market share of the industry players. It thus eventually commenced the process, designed under section 67 of the ECA, of analysing the market, identifying market failure and considering what remedies were appropriate to correct such failure.

Even though the process of formulating the call termination regulation started late, and arguably took too long to complete, the well-structured analysis of the market assisted ICASA in properly identifying where market failure had occurred and how to address it. The process included an 'inquiry' into call termination rates under section 4D of the ICASA Act, and on 29 January 2007 the Authority gazetted a discussion document entitled Notice of Intention to Define Relevant Wholesale Call Termination Markets (ICASA 2007a). This was concerned with understanding the manner in which wholesale termination charges were determined by licensees, through an inquiry that sought to solicit from them broad and general information. The discussion document addressed issues such as (i) the designation of licensees as possessing SMP, (ii) the consideration of issues relating to the competitive functioning of the proposed market for rendering wholesale call termination services and (iii) the consideration of potential structural and behavioural constraints present in the functioning of the proposed market, which *prima facie* rendered the proposed market as not being characterised by effective competition. ICASA then gazetted a document on 9 November 2007, titled Publication of the Findings to Section 4C of the ICASA Act of an Inquiry Conducted in Terms of Section 4B of the ICASA Act (the Findings Document) (ICASA, 2007b). In detailing its understanding of the powers conferred upon it by the national legislature in relation to the implementation of Chapter 10 of the Act, ICASA set out in the Findings Document the envisaged regulations that it considered necessary to prescribe prior to intervening and making substantive regulations of pro-competitive conditions.

In this regard, ICASA stated that the following regulations would be required (ICASA 2007b, p11):

- (i) Regulation(s) defining and identifying the retail and wholesale market segments and the manner in which SMP would be determined.
- (ii) Regulation(s) detailing the methodology to be used in determining whether or not a relevant market is characterised by ineffective competition, with reference to particular factors.
- (iii) Regulation(s) detailing the potential pro-competitive measures that the Authority might impose where it is of the view that a relevant market is characterised by ineffective competition.
- (iv) Regulation(s) detailing both a schedule where the Authority would undertake periodic reviews of the relevant markets as defined, and providing for procedures for the monitoring and investigation of anti-competitive behaviour in the relevant markets as defined.

ICASA proceeded to release draft regulations on each of these components.¹ There was therefore, at the outset at least, a thorough and conscious approach by ICASA to explore the evaluation of the relevant market and the types of intervention that might be required. Unfortunately, however, these 2007 draft regulations were never finalised.

On 9 October 2009, ICASA released a request for information from all licensees to facilitate an up-to-date, evidence-based evaluation of the effectiveness of competition in the call termination market (ICASA, 2009). ICASA also released, on 8 March 2010, a Guideline for Conducting Market Reviews in order to provide stakeholders and licensees with clarity as to how market reviews in terms of Section 67 were to be conducted, including the public consultation process, the relevant powers of information-gathering and the types of information that could be requested by the Authority.

¹ These draft section 67(4) regulations were gazetted as follows:

- Draft regulations pursuant to Section 67(4)(a) of the ECA, Government Gazette No. 30850 of 6th March 2008 (General Notice No. 335 of 2008)
- Draft regulations pursuant to Section 67(4)(b) of the ECA, Government Gazette No. 30851 of 6th March 2008 (General Notice No. 336 of 2008)
- Draft regulations pursuant to Section 67(4)(c) of the ECA, Government Gazette No. 30849 of 6th March 2008 (General Notice No. 334 of 2008)
- Draft regulations pursuant to Section 67(4)(d) of the ECA, Government Gazette No. 30848 of 6th March 2008 (General Notice No. 333 of 2008)
- Draft regulations pursuant to Section 67(4)(e) of the ECA, Government Gazette No. 30846 of 6th March 2008 (General Notice No. 331 of 2008)
- Draft regulations pursuant to Section 67(4)(f) of the ECA, Government Gazette No. 30847 of 6th March 2008 (General Notice No. 332 of 2008).

This process eventually culminated in draft Call Termination Regulations (ICASA, 2010a) published on 16 April 2010 and final Call Termination Regulations (2010b) published in October 2010. The pro-competitive remedies in relation to MTRs under the 2010 regulations provided for a reduction in interconnection rates as well as asymmetric MTRs. Asymmetry would enable Cell C and other licensees to charge higher MTRs to Vodacom and MTN than they could be charged in return.

ICASA explained that such remedies were aimed at redressing failures in each of the mobile and fixed markets. In the explanatory notes to the 2010 regulations, ICASA stated that (ICASA, 2010c, Section 2.4.5(6)):

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. 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.

ICASA also indicated that it expected the imposition of these pro-competitive terms and conditions on operators in the relevant markets to achieve the following: a more efficient and effective access regime; a more dynamic retail pricing environment; and continued access and investment in electronic communications networks in South Africa.

Although ICASA took time to exercise these powers, the regulated reduction of interconnection rates and the imposition of asymmetry were valuable interventions in the South African mobile telecommunications sector. It was at least partially effective in constraining the operators with significant market power - MTN and Vodacom - while facilitating more intense competition from smaller-scale rivals like Telkom Mobile and Cell C. For example, the asymmetry granted to Cell C put it in a better position to lead retail price reductions over the period of the initial regulation, for instance by introducing a flat 99c price per minute for on-net and off-net calls by Cell C subscribers. This prompted the other operators to reduce their prices, at least for on-net calls. However, Cell C did not gain significant revenue share, and argued that the extent of asymmetry granted by the 2010 regulations was too little to facilitate its growth and ability to compete (Cell C, 2014).

This regulation by ICASA was facilitated by the provisions of the ECA, based on a thorough analysis of what pro-competitive measures were needed. However, in the three-year period over which the 2010 regulations were applied, the goals of creating a dynamic retail-pricing environment, a more efficient access regime and increased investment were not fully achieved. The provisions of the ECA and the 2010 regulations encourage a review of pro-competitive remedies. ICASA began this process in July 2013, when it began its Cost to Communicate programme, aimed at exploring the range of issues thought to have caused unacceptably high communication costs in South Africa. One of the issues identified to be evaluated was the high call termination rates. ICASA noted in this regard that it would review the 2010 regulations but not 'consider revisions of either the market definitions or SMP determinations as these will not have changed' (ICASA, 2013a, p.10).

ICASA conducted this review by issuing a questionnaire to licensees, then publishing draft call termination regulations in October 2013 (ICASA, 2013b). This review concluded that the market definitions had not changed, there was still ineffective competition in these markets and there was thus a need to continue to impose pro-competitive remedies. ICASA concluded that far more extensive cuts in call termination rates were called for, with more expansive asymmetry. The final regulations were published on 4 February 2014 (ICASA, 2014).

The incumbents, Vodacom and MTN, challenged the regulation on review in the High Court.² Cell C and Telkom Mobile joined ICASA in opposing the applications. The Court reached its decision on only one of the many grounds raised for review, namely that ICASA had failed to take into account the operators' actual costs when setting the MTRs. The Court found that ICASA's determination of a glide path from 20 cents per minute terminated in 2014 to 10 cents per minute terminated in 2016 was arbitrary and could not have been cost-based.³ Nevertheless, because of the public interest in having MTRs regulated, the Court provided that its order, setting aside the regulations, be postponed for six months, allowing ICASA time to conduct the review again and promulgate new regulations. ICASA promulgated new regulations in September 2014, which regulate MTRs for a further three-year period (ICASA, 2014b). In this six-month period, ICASA required updated costing data to be provided by all operators and used cost-modelling consultants to work out cost-based interconnection rates. It therefore attempted to meet the High Court's requirement for its regulatory decision to be cost-based. However, these regulations provide a far lower level of asymmetry to Cell C and Telkom Mobile than the reviewed regulations did, and therefore it is likely that they will face a High Court review again.

The broad approach to price regulation of MTRs developed by ICASA in terms of the ECA was appropriate, because it followed application of competition analysis for purposes of diagnosing the market failures and identifying appropriate remedies. This discussion does not reflect on the precise content of the regulations, nor does it seek to comment on the level of the rates applied or the extent of asymmetry. ICASA's regulatory process for call termination rates conducted in 2010 and in its subsequent review of that regulation in 2013 and 2014 is not without fault. It is important that any sector regulator properly evaluates and applies the information before it in order to reach the final decision, as pointed out by the High Court. Nevertheless, the provisions of the ECA enabled ICASA to identify the correct type of regulation, via a thorough and well-structured assessment of relevant economic conditions and competitive constraints in the market.

2 Mobile Telephone Networks (Pty) Ltd v The Chairperson of the Independent Communications Authority of South Africa; Vodacom (Pty) Ltd v The Chairperson of the Independent Communications Authority of South Africa (yet to be reported – case no. 2014/0699 and 2014/6710) 31 March 2014.

3 MTN v Chairperson ICASA; Vodacom v Chairperson ICASA (note 30) para 91.

It is unfortunate that ICASA only engaged in this regulation long after new entrants entered the market, and that the only time it has exercised its Section 67 powers is in relation to interconnection rates. There are numerous other matters in the electronic communications and broadcasting industries where ICASA should exercise these powers. In telecommunications, further *ex ante* regulation relating to access to essential facilities could be pursued. In the broadcasting sphere, ICASA published a Discussion Document on Broadcasting Transmission Services (ICASA, 2011), but had not finalised any regulation at the time of writing. No other steps have been taken in the broadcasting industry – for example no active interventions have been taken in relation to the dominance in the subscription television market, which is ripe for *ex ante* regulation.

In light of the fact that the ECA provided useful guidance to ICASA regarding how to apply a competition analysis to its economic regulation, it is of concern that the amendments to the ECA, which came into force in April 2014, remove some of the particularity that was in the previous version of that legislation. As illustrated above, the more prescriptive considerations relating to assessing the effectiveness of competition in the relevant markets have been removed (such as requiring the evaluation of concentration, control of essential facilities, access to capital markets, etc).

That said, not all guidance is removed by the amendments to the ECA. The general structure remains – that there needs to be a definition of the market, an evaluation of market power in that market and a determination of whether there are market failures. The power to impose pro-competitive conditions where there is ineffective competition remains, and the legislation makes it clear that those interventions must be appropriate, sufficient and proportionate. In explicitly requiring these measures to be sufficient and appropriate, the amendments improve the terms of Section 67. In particular, the reference to ‘sufficiency’ should provide the authority with scope to amend and extend their regulation when past regulation has not achieved its objectives.

MAXIMUM PRICE REGULATION OF PIPED GAS BY NERSA

It is interesting to contrast the ICASA MTR regulation with the exercise of NERSA’s *ex ante* regulatory powers in the piped gas sector, because it illustrates how the framework set out in the legislation assists the regulator to conduct assessments of the market in a manner that will result in determining appropriate economic regulation in one case and not in the other.

The regulatory framework for piped gas is set by the Gas Act No. 48 of 2001, which established a National Gas Regulator and provided for the ‘orderly development of the piped gas industry’ (RSA, 2001). The Gas Regulator referred to in the Gas Act is in fact NERSA. The Gas Act defines ‘Gas Regulator’ as NERSA, a juristic person established in terms of section 3 of the NERSA Act. Although the Gas Act was signed in 2001, it only came into effect in November 2005, after the NERSA Act had come into effect and NERSA was established. Accordingly, when referring to the Gas Regulator, the Gas Act means NERSA, and the term ‘Gas Regulator’ is used interchangeably with ‘NERSA’.

The functions of the gas regulator are set out in section 4 of the Gas Act and include the power to ‘regulate prices’ in terms of section 21(1)(p) in the prescribed manner’; and to ‘monitor and approve, and if necessary regulate, transmission and storage tariffs and take appropriate action when necessary to ensure that they are applied in a non-discriminatory manner as contemplated in section 22’ (RSA, 2001). Section 21(1) of the Gas Act deals with conditions of licences and provides that the gas regulator may impose licence conditions within a stipulated framework of requirements and limitations, including, in terms of subsection (p) that ‘maximum prices for distributors, reticulators and all classes of consumers must be approved by the gas regulator where there is inadequate competition as contemplated in Chapters 2 and 3 of the Competition Act, 1998 (Act No. 89 of 1998)’ (RSA, 2001).

The provisions of section 21(1)(p) must be read together with Regulation 4 of the Gas Regulations, which provides that the gas regulator must, when approving the maximum prices, be objective, fair, non-discriminatory, transparent, predictable and include efficiency incentives. The provisions also state that the maximum prices must enable the licensee to recover all efficient and prudently incurred investment and operational costs, and make a profit commensurate with risk.

However, in terms of section 36 of the Gas Act, the Gas Act’s provisions were subject to the provisions of the Mozambique Gas Pipeline Agreement (MGPA) between the Minister of Minerals and Energy, the Minister of Trade and Industry and Sasol Limited. The MGPA facilitated the introduction of natural gas by pipeline from Mozambique into South Africa. This agreement endured for a period of 10 years after natural gas was first received from Mozambique until 25 March 2014. Its purpose was to compensate Sasol for the investment it was required to make in order to extract natural gas from the gas fields in Mozambique and to construct a gas transmission pipeline from Mozambique to South Africa. In exchange for supplying 120 million gigajoules per annum of natural gas from Mozambique to South Africa for 25 years after the date when natural gas was first sold and delivered on a commercial and continuous basis to pipeline customers in South Africa (clause 4), Sasol was permitted to charge external customers a price for the gas which was determined in accordance with a ‘market value pricing’ (MVP) formula (MGPA, 2001). This effectively allowed Sasol to charge discriminatory prices for natural gas and effectively shielded Sasol from complaints in terms of the Competition Act, for example, based on excessive pricing in contravention of section 8(a).

In anticipation of the MPGA coming to an end in 2014, NERSA released a consultation document on 21 October 2010 dealing with the Methodology to Approve Maximum Prices for Piped-Gas (NERSA, 2010) in terms of section 21(1)(p) of the Gas Act. NERSA noted that its responsibility to approve maximum prices required there to be 'inadequate competition' (NERSA, 2010, p.7) as contemplated in Chapters 2 and 3 of the Competition Act.

This implied that 'NERSA should encourage competition and seek to replicate competitive market outcomes in approving maximum prices' (NERSA, 2010, p.16). NERSA explained further that the regulated maximum price for the gas energy component of the maximum price should shadow the hypothetical price that would occur if competition were not limited. NERSA stated that (NERSA, 2010, p.25-26):

[O]n this basis, the maximum regulated price for gas energy will fall somewhere in the envelope bounded on the low end by the cost of production of gas, and on the high end by the opportunity value for consumers (their cost of a reasonable alternative fuel).

NERSA observed that 'this latter outcome (which may result in Market Value Pricing), is inefficient, and results in a deadweight loss to the economy as a whole' (NERSA 2010, p.26) and concluded that the 'best regulatory option is to seek to replicate market outcomes and set the maximum price for gas energy as closely as possible to the marginal cost of supply' (NERSA, 2010, p.27).

NERSA (2010) stated, however, that the marginal cost approach may not encourage competition, because it may not leave any surplus for a potential competitor to enter the supply market. The energy regulator also expressed the view that marginal cost is difficult to calculate. It further dismissed international benchmarking as an inappropriate basis for piped-gas pricing in South Africa on the grounds that the South African gas market is unique. On this basis, it proposed that the price of alternatives is 'arguably the more appropriate option' (NERSA, 2010, p.30-31.⁴

In June 2011, NERSA released a Draft Methodology to Approve Maximum Prices of Piped-Gas in South Africa. The document stated that '[i]n the absence of a transparent gas market price in South Africa, the maximum price for gas energy (at the point of its first entry into the transmission/distribution system) shall be determined by reference to energy price indicators' (NERSA, 2011a, section 3.1).

NERSA recognised that, in order for it to approve maximum prices of piped gas, it had to be of the view that there existed market conditions or market features indicating inadequate competition, hence it proceeded to set out an assessment of the current piped gas market conditions that indicated, in its view, inadequate market competition and the need to approve maximum piped gas price in the prescribed manner. Those conditions included (NERSA, 2011a, pp. 32-33):

- (i) a monopolistic market structure in terms of which Sasol (pursuant to the MVP model) references the price of natural gas to the costs of an alternative energy source available to an individual customer. NERSA noted: *'This is a perfect price discrimination scenario by a monopolist'*;
- (ii) prices that are higher than those charged in perfect competition or in a competitive market; and
- (iii) significant entry barriers, lack of countervailing power, lack of product differentiation, discriminatory pricing and a high degree of vertical integration of Sasol in the gas market.

In September 2011, NERSA produced a discussion document entitled Determination of the Inadequate Competition in the Piped-Gas Industry as Contemplated in Chapters 2 and 3 of the Competition Act, 1988 (NERSA, 2011b). In that document, NERSA repeated the views it had expressed in its Draft Methodology on Maximum Pricing of Piped-Gas regarding the inadequacy of competition in the South African gas industry. In October 2011, NERSA released the final Methodology to Approve Maximum Prices of Piped-Gas in South Africa (NERSA, 2011c) along materially the same lines as the Draft Methodology. It explained that a licensee would be required to apply for maximum prices for each customer class (determined by volume) and each customer category's price would have to be below the maximum price as approved by NERSA for that licensee.

In the discussion document, NERSA recognised that (NERSA, 2011b, p.10):

Given the costs of fuel conversion, once the decision to use gas has been made, the customer is effectively captured by the gas supplier, and in the absence of multiple gas suppliers the customer is no longer open to competitive threat

and further noted in this regard that (NERSA, 2011b, p.10):

The adoption of energy price indicators related to other fuels is a pragmatic approach to determine what a competitive energy price should be. It is not evident that alternative fuel types provide adequate competition for gas. NERSA does not support the view that the market is defined as a broad 'energy market', but instead considers the relevant market to be one for piped-gas including (mobile) storage.

⁴ It stated in this regard that:

The level of the alternative fuel cost can be managed by using a basket of alternative fuels and:

- recognizing that no single fuel is a perfect substitute for gas; and
- allowing regulated prices to be determined at a level that reflects the balance between encouraging new entry and sharing economic surplus between consumers and producers.' (p.29).

On 8 February 2012 (after the approval of the final methodology), NERSA approved the Determination of Inadequate Competition (NERSA 2012a). In early 2013, NERSA received two applications from Sasol Gas Limited (NERSA, 2012b; 2012c) requesting approval of maximum gas prices for the period 26 March 2014 to 30 June 2017 and a trading margin for the period 26 March 2014 to 30 June 2015 (maximum gas price application); and approval of a transmission tariff for the period 26 March 2014 to 30 June 2015 (transmission tariff application).

The applications were published for public comment in February 2014. Detailed written submissions to NERSA were submitted in respect of Sasol's applications on behalf of several large industrial users of gas, who argued that both the methodology and the process adopted by NERSA were flawed. However, on 25 March 2013 the Piped-Gas Sub-Committee of NERSA recommended approval of Sasol's applications and on 26 March 2013, the applications were approved by NERSA's Board (NERSA, 2013).

An application for the review of NERSA's decision in relation to these pricing applications was filed by a group of large industrial users of gas in the North Gauteng High Court on 18 October 2013 (Creamer, 2013). The application alleges that NERSA's decision suffered from serious procedural errors, and that NERSA's pricing methodology was fundamentally inconsistent with the underlying objective of the statutory powers granted to NERSA in terms of the Gas Act, which is to ensure that suppliers charge prices that are reflective of those they could charge in competitively priced markets (as opposed to uncompetitive or monopoly prices). They argued that NERSA's pricing decision would have the perverse effect of entrenching Sasol Gas' monopoly pricing structure and allowing it to charge prices significantly higher than the average prices it charged customers of piped gas, in a market in which pricing had been significantly warped by the fundamentally anticompetitive Mozambique agreement (Steyn, 2014). This is due to the use of NERSA's methodology, which considers the price of several alternative fuel sources, resulting in a maximum price higher than prices that would prevail in a competitive market for piped gas by way of the 'cellophane fallacy' (Motta, 2004). This also results in a maximum price that is higher than the cost of switching out of piped gas to the marginal source of supply. It may be some time before the High Court rules on this application.

It is of some concern that NERSA decided to regulate prices before conducting the inadequate competition assessment, given that such an assessment is a jurisdictional pre-requisite for regulation (RSA, 2001, Section 21(1)(p)). More importantly, the competition assessment was inadequate, because it did not contain a thorough analysis of the nature of competition at various levels of the market. Further, it appeared to display a lack of understanding of key competition law and economics principles. For instance:

- (i) NERSA seems to have included products within the market definition purely because of the terms of the Gas Act, rather than based on a view on the substitutability of the alternative products (compressed natural gas (CNG) is viewed as part of the piped gas market because of the definition in the Gas Act)
- (ii) Despite the fact that the final pricing methodology relied on the pricing of a basket of alternative fuel sources, NERSA's competition assessment did not consider that alternative fuels are in the same market as piped gas because of the high cost of switching
- (iii) NERSA makes its geographic market definition conditional on willingness of suppliers to build the infrastructure; availability of a pipeline to connect the customer; willingness of the customers to pay a connection and transportation costs; and sufficient gas to supply the customer
- (iv) NERSA concludes that the relevant geographic market is the whole of South Africa. Although NERSA is correct in stating that if these factors were present then a customer could access gas anywhere in the country, a comprehensive market definition requires an analysis of whether such factors are indeed present.
- (v) NERSA concludes that the relevant market is the market for the supply of gas to the wholesale and retail markets, which includes distributors, traders, and reticulators, without having undertaken a functional market definition exercise. NERSA seemingly reaches this conclusion on the basis that Sasol Gas is active at all levels of the supply chain, however there are functional distinctions between these levels and parties that operate at only one of those functional levels
- (vi) NERSA made no determination of what the term 'inadequate competition' means, and unfortunately, this term is not defined with reference to the Competition Act. Using sections 7, 8, 9 and 12A(2) of the Competition Act, NERSA was able to identify key issues that impede more effective and adequate competition, namely structure of the market, entry barriers, exercise of market power, anticompetitive conduct such as price discrimination and high prices, and market allocation. However, these considerations are all based on Sasol's position in the market, as well as on Sasol's conduct, permissible in terms of the MPGA.
- (vii) NERSA states that it has used sections 7, 8 and 9 of the Competition Act in its analysis. However, while section 7 sets out when a firm is considered to be dominant, sections 8 and 9 deal with abuses of dominance. It is important to note that the mere fact that a firm is dominant and has market power is not viewed as anti-competitive under the Competition Act. It is only the abuse of that dominance that is considered anti-competitive and is therefore prohibited in terms of the Competition Act. A mere assertion of dominance and market power by NERSA is therefore insufficient to show inadequate competition in terms of chapters 2 and 3 of the Competition Act.

The above discussion illustrates that NERSA failed to apply well-established competition analysis in the exercise of its economic regulation. In our view, Section 21(1)(p) of the Gas Act does not provide adequate guidance to NERSA on what process it should follow in order to assess whether inadequate competition exists

and price regulation is necessary, and if so, how should it be enforced. The legislative guidelines afforded to NERSA for price regulation in terms of the Gas Act are far less prescriptive than those laid down by the ECA for ICASA.

Although Section 21(1)(p) clearly implies that NERSA must assess the nature and extent of inadequate competition *before* regulating prices,⁵ the Gas Act does not set out a clear series of steps to be followed to identify and then evaluate the competitive conditions in the relevant market. It would be more helpful to NERSA if the Gas Act were to set out clear guidance for the regulator to define the relevant markets and set out a methodology for determining whether there is inadequate competition in these relevant markets. Such guidance could refer to, for example, the factors set out in section 12A(2) of the Competition Act, which are commonly used in traditional economic analysis (ICN, n.d.) to assess the nature and level of competition in a relevant market. These factors would include the actual and potential level of import competition; ease of entry, including tariff and regulatory barriers; level and trends of concentration; history of collusion; degree of countervailing power; dynamic characteristics including growth, innovation and product differentiation; and nature and extent of vertical integration.

Moreover, in terms of the Gas Act, NERSA has no general powers to monitor gas prices or initiate a process to regulate pricing. It can only 'approve' a maximum pricing application once it receives one. Furthermore, there is no provision for NERSA to initiate a review of its decisions on maximum pricing, in the event of a material change in market dynamics, and no means for buyers of gas to trigger such a review. These kinds of powers should be granted to NERSA to ensure that its *ex ante* regulation is appropriate and meets the objectives of the Gas Act, including to promote the development of competitive markets for gas and gas services.

Proposed amendments to the Gas Act are under discussion. The Gas Amendment Bill, 2013 proposes to change section 21(1)(p) so that: 'maximum prices and tariffs for distributors, reticulators, and all classes of customers must be set in the prescribed manner' (RSA, 2013, section 12). It therefore contemplates a far more interventionist regulation of pricing – to set rather than just approve licensees' maximum prices. However, the prerequisite to determine whether there is inadequate competition in the market before exercising its pricing regulation power has been removed in the Bill. Therefore, the proposed amendments suggest that there be no evaluation of the levels of competition before pricing regulation is imposed. These concerns should be addressed so that the final version of the legislation provides for thorough *ex ante* economic regulation, through the application of competition analysis, where the state of competition in the market is such that *ex ante* interventions are necessary.

RECOMMENDATIONS ARISING OUT OF THE COMPARISON BETWEEN NERSA AND ICASA'S EX ANTE REGULATION

1. LEGISLATIVE AMENDMENT

The experiences of *ex ante* regulation discussed here suggest that the relevant legislation should be detailed and prescriptive in setting out steps to apply a competition analysis to economic regulation. As noted above, in relation to the ECA, we are of the view that the ECA prior to amendment was more helpful to ICASA in directing it on how to apply a competition analysis.

In relation to the Gas Act, we note above that the proposed amendments to that Act inappropriately propose a move away from a competition analysis approach. The amendments to the Act should not only maintain the requirement for inadequate competition to be present before the imposition of *ex ante* regulation, but should also introduce the kind of guidance contained in the ECA 2005, with respect to how to conduct an assessment of competition in the relevant markets and how to tailor regulation to address those market failures.

2. CONCURRENT REGULATION

The Competition Act requires the Competition Commission to engage with sector-specific regulators when applying its *ex post* regulatory powers. The Competition Act provides for Memoranda of Understanding (MoUs) to be entered into between the parties. However, neither the Gas Act nor the ECA requires that the sector regulator engage the Competition Commission when engaging in the relevant *ex ante* regulation. As noted above, *ex ante* regulation should apply competition analyses to ensure that the market is structured so as to best facilitate competition. However, this may require sector regulators to apply competition analysis without much experience of competition law and competition economics or the techniques used by competition authorities to regulate. Accordingly, there needs to be cooperation between the competition and sector regulators to ensure appropriate knowledge sharing. Accordingly, sector specific legislation should similarly envisage MoUs with the Competition Commission to set out practical and particularised steps on engagement in each instance where there needs to be the application of *ex post* regulation in a regulated sector.

3. ADEQUATE PROVISION FOR APPEALS

Neither the Gas Act nor the ECA provides for any internal appeals process in relation to the exercise of competition regulation by independent regulators. In order to review decisions of NERSA and ICASA in the

⁵ One of the grounds on which NERSA's determination of Sasol's applications is being reviewed is that NERSA determined its methodology before making its finding of inadequate competition.

course of exercising their powers, aggrieved parties have to bring an application to the High Court. As mentioned above, Vodacom and MTN succeeded in having the 2014 Call Termination Regulations set aside by the High Court in the form of an order suspending the implementation of the regulations until the review had been decided. A further review of the re-done process is now likely. A similar review is being pursued against NERSA in relation to its maximum pricing regulation.

While we present no view regarding the validity of NERSA's or ICASA's processes that led to these reviews, or indeed the substantive 'correctness' of the regulation that resulted from these processes, it is noted that reviews like these generally take many years to complete, because all High Court litigation (except in relation to urgent applications) is inevitably slow, and further appeals and interlocutory processes can further delay matters. While the review of the call termination regulations was concluded on an urgent basis after only a couple of months, the consequence of this review was that the market suffered from uncertainty about how it would be regulated post-September 2014. ICASA has now published new regulations to replace those which were set aside, but those new regulations also face a possible review.

This problem highlights the advantages of the competition authorities' process. In this regard, if the Competition Commission regulates, its decisions primarily lead to referral to the Competition Tribunal. There is thus an investigation process during which the Commission can take into account stakeholders' submissions. However, the Commission's decision is then subject to further oversight and decision by the Tribunal, and the Tribunal process provides for the exchange of pleadings of the relevant parties and opportunities for testimony and cross-examination of both factual and expert witnesses (Competition Tribunal, 2011).

It is for this reason that the High Court has found that a referral by the Competition Commission does not amount to administrative action for the purposes of administrative review, because it does not have a direct, external effect on the rights of the affected parties.⁶ The decision of the Tribunal will affect parties' rights, and this decision will only be taken after a comprehensive fair hearing process. Such Tribunal processes can be completed in shorter periods than High Court litigation.

It would accordingly be helpful if the ECA and the Gas Act provided for some internal review processes before having to resort to the High Court. For instance, the creation of an 'economic regulation tribunal' may enable questions of both legal procedural process and substantive technical regulation to be considered by an expert body that can adjudicate complaints regarding sector regulators' rulings. A single economic regulation body could play this role (thereby avoiding separate entities for telecommunications, gas, airlines, broadcasting, etc), since the principles underlying economic regulation, with the application of competition analysis are consistent across industries.

Such a Tribunal's decisions may or may not in turn be subject to review in the High Court, but its existence would be designed to provide more efficient and speedier assessment of reviews of economic regulation than the High Court. Such an entity should be staffed by persons who are familiar with economic and competition regulation, so that account is taken of specific needs of economic regulation, and minor gaps in procedural issues are weighed against the substantive outcomes of such process. If the High Court does in turn review this body's decision, it should defer to it, in light of its expertise, as is the case with the Competition Tribunal.

CONCLUSION

The experience of regulation by sector regulators and the competition authorities in South Africa over the past 10 years demonstrates the challenges inherent in aligning competition law enforcement and efficient price regulation in the telecommunication and piped gas sectors.

It is apparent that the governing legislation should define roles and responsibilities clearly and provide for the application of competition analysis in relation to ex ante regulation. There should also be mandatory legislative provision for interaction between competition authorities and sector regulators to ensure knowledge transfer, as well as effective regulation. This may contribute to delivery to the South African consumer of lower prices and improved products and services.

Legislative design, together with South Africa's experience in applying ex ante regulation can hold lessons for other African countries that are relying on regulation to create competitive markets to deliver the best results for consumers in the long term.

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