

The impact of economic regulation on the management and performance of State Owned Enterprises

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1 Introduction

This report has been prepared for the Presidential State Owned Enterprise Review Committee. It address the first terms of reference of it Governance and Ownership Work Stream namely: *Current SOE Policy and Regulatory Framework and the Impact thereof on the Management of State-Owned Enterprises.*

The report sets out to identify the key challenges related to the economic regulation of State Owned Enterprises (SOEs) in the energy, transport and communications sectors. It aims to understand how regulation and the related governance framework impact on the performance of SOEs; to develop a better understanding of the problem areas; and to make recommendations for how the contribution of economic regulation to SOE performance can be improved.

The subject matter covered in this report is closely related to work done for two other Governance and Ownership work stream oobjectives, namely:

- Shareholder oversight and governance; and
- Recruitment, selection and appointment of Boards

The approaches developed in the three areas needs to be integrated in order to develop a comprehensive and congruent governance and regulatory framework for SOEs.

1.1 Approach and outline

Work on the report was conducted in a limited time frame. Under these circumstances the best research strategy was to review the literature on the previous work done in this area in South Africa, to utilise existing reviews of the international literature, and to interview experts and a number of industry stakeholders¹. It was thus not possible to provide comprehensive reviews of the key issues in each sector. The aim was rather to identify common challenges across the sectors and to identify some examples of each. The case material presented briefly covers the energy sector (Eskom, municipalities, petroleum and gas pipelines and storage), Transport (ports and airports), and Communications (Telkom and Broadband Infraco).

For the purposes of this report, economic regulation is taken to mean:

...the combination of institutions, laws, and processes that, taken together, enable a government to exercise formal and informal control over the operating and investment decisions of enterprises that supply infrastructure services. (Brown, Stern, Tanenbaum, & Gencer, 2006, p. 5)

The approach adopted to examining the regulatory system follows that of Brown *et al*:

¹ In order to encourage frank discussions during the interviews interviewees were told that they would not be cited directly.

Any evaluation of regulatory effectiveness must examine the entire regulatory system—not just the characteristics and actions of the formally designated regulatory entity. (ibid)

1.2 Background: independent economic regulation in South Africa and abroad

It is in the nature of government to have powers to regulate economic activity. Statutory regulatory powers are pervasive throughout the three tiers of government in South Africa and are often vested in a sector Minister, or in a departmental committee appointed by the Minister. However, new style Independent economic regulation² of the infrastructure sectors was effectively introduced to South Africa following the transition to democracy in 1994. The requirement in section 192 of the Constitution for the establishment of an independent broadcasting regulatory authority set the precedent:

National legislation must establish an *independent authority* to regulate broadcasting in the *public interest*, and to ensure fairness and a diversity of views broadly representing South African society. (emphasis added).

Since the middle 1990s South Africa has established a range of independent regulatory authorities and, as the process unfolded, in some cases merged a number of them to form multi-sector regulators. The primary independent economic regulators are the following³:

- ICASA

The Independent Communications Authority of South Africa (ICASA) regulates broadcasting, electronic communications, and postal services.

- NERSA

The National Energy Regulator of South Africa (NERSA) regulates, petroleum pipelines and storage, gas pipelines, and electricity

- The Ports Regulator

The Ports Regulator regulates the Transnet National Ports Authority (TNPA)

Discussions are also underway to establish a Water Services Regulator and a Single Transport Economic Regulator for South Africa. Many sectors in South Africa are also still subject to “old

² Regulatory independence is not absolute and regulators are not intended to be a law unto themselves. Regulators are typically required to function within specific legal mandates and policy frameworks established by governments, and mechanisms should be established to ensure that they remain within their mandates and are accountable for performance. Regulatory independence and accountability is further discussed below.

³ The Regulating Committee in the Department of Transport is an old style regulatory authority that regulates the Airports Company of South Africa (ACSA) and the Air Traffic navigation Services (ATNS)

style” economic regulation by regulatory authorities with limited independence from the political authorities.

The model for independent economic regulation adopted more recently in South Africa agrees with the approach that has been widely adopted in one form or another in democratic developed and developing countries alike. Examples include:

- The Indian State Electricity Regulatory Commissions;
- The Indian Central Electricity Regulatory Commission (SOE generators and inter-state Transmission of power);
- The Brazilian National Telecoms Regulator (ANATEL);
- The Brazilian Electricity Regulatory Agency (ANEEL);
- The multiple state utilities commissions in the US;
- The Federal Energy Regulatory Commission (FERC) in the US;
- The Canadian National Energy Board;
- The Office of Gas and Electricity Markets (Ofgem) in the UK;
- The Independent regulator and competition authority for the UK communications industries (Ofcom);
- The Australian Energy Regulator (NER);
- The Public Utilities and Regulatory Commission of Ghana; and
- The Energy Regulatory Commission of Kenya;

The process of adopting, developing and refining the institution of economic regulation continues world-wide.

2 Previous work

This report draws on previous work undertaken in South Africa and internationally on the role and impact of economic regulation in infrastructure industries.

2.1 Literature on South Africa

As part of its Ten Year Review conducted in 2003, the South African Presidency commissioned a study of the effectiveness of the infrastructure economic regulatory authorities established during the previous decade. The work was later presented at the 2003 TIPS Forum⁴. The study produced detailed findings for the sectors covered (Telecommunications, Electricity and Transport). It highlighted the concern that the market design and regulatory frameworks developed in the different sectors reflected substantial differences in approaches which could not be justified:

...it is evident that fundamentally different approaches have been adopted to essentially similar issues in the different sectors. It is not evident that these differences reflect either any underlying differences in regulatory requirements or an evolutionary process through which improvements have been progressively introduced to reflect the lessons learned from past experience.

This study by was the first to conduct a systematic review of the performance of the key economic regulators in the infrastructure sectors in South Africa.

Later that year National Treasury commissioned a series of studies on “administered prices” in public services, including on electricity, transport, telecommunications⁵. The primary conclusions from this study related to the importance of coordinating price regulation with national policy objectives; of ensuring that prices are set at efficient levels to avoid excessive demand (and over investment in supply) or too high price levels resulting in underutilisation of infrastructure; and of ensuring that regulators are properly resourced.

During the second half of 2004 the Department of Public Enterprises commissioned a study to develop a “Strategy for Strengthening of Telecommunications, Energy and Transportation Regulators” (Department of Public Enterprises, 2005). The recommendations focussed on:

- Improving regulator credibility
- Reducing regulatory risk
- Fulfilling the regulatory mandate

Key strategies identified to achieve these outcomes included improving regulatory performance management, talent management, and providing greater financial independence for regulators.

⁴ It was published as Teljeur, Gillwald, Steyn & Storer (2003) (2003).

⁵ See, Steyn (2003), Teljeur (2003), Hodge (2003), and Storer and Teljeur (2003).

Mayer and Onyango (2005) conducted a literature based review of economic regulation in South Africa. The paper highlighted the finding that regulatory frameworks are established and managed “on a sector-by-sector basis, rather than with an eye to cross-sector implications and learning” (2005, p. : 1), and suggested that there is a need for a single regulatory framework for the regulation of administrative price setting.

In a paper on the performance of Eskom’s investments in power sector infrastructure Steyn (2006) employs a principal-agent framework to identify moral hazard problems with infrastructure investment decision making in the power sector. He identified a range of governance problems (including with the regulatory framework) that affects the efficacy of investment decisions in large-scale infrastructure, and suggests principles that should inform institutional reforms to improve performance. These include the need for ensuring transparency of the economic assessment of SOE infrastructure investment plans and for empowering economic regulators to vet such decisions:

With respect to the last element, improvements could be made to the information problems relating to Eskom’s investment planning practices. Eskom investment plans are mostly developed on a confidential basis, and are submitted for Cabinet approval before they have been formally evaluated by the National Energy Regulator of South Africa (NERSA) or made available for public comment and reviewed by independent analysts and researchers. As a public utility Eskom should be required to make detailed information about its planning methodology, assumptions and plans available and to engage in public dialogue about its plans. Eskom should further be required to first take its plans through the NERSA approval process, which should be open to the public. By obtaining Cabinet endorsement of plans that have not been reviewed by independent parties, Eskom makes it politically nearly impossible for NERSA to respond critically or disagree. (ibid: 54).

In 2007 TIPS produced a concept research paper on the “Economic Regulation of SA’s public utilities” (van Basten, 2007). One of the key findings relates to the respective roles of policy making, share holding and regulation that are performed by the state:

Government has not found a definite solution to its multiple roles as shareholder and policymaker, or reconciled this with the state’s decisions to allocate economic regulatory functions to an independent regulator. Current role confusion potentially limits the effectiveness of this governance system. A Regulator needs to have a clear and unambiguous mandate in order to fulfil it effectively. The regulator also needs to be provided with the tools to fulfil its mandate. This can entail a per sector analysis of the multiple roles of different entities and recommendations on how the roles can be ring-fenced practically. (ibid: 40).

The report also highlighted “Government’s seemingly indecisiveness on certain policy issues...” (ibid: 40) which tends to hamper performance in key infrastructure sectors. The report further

identified strategies to strengthen economic regulation: and in particular strategies to address concerns about “human capacity issues” and the need for training and technical assistance programmes to “build capacity and to assist in learning from the experience of other regulators.”

A year later Genesis Analytics was commissioned by the Office of the Presidency to produce a report on “A Regulatory Framework for Economic Regulation of Network Industries in South Africa” (2008). The report emphasised the importance of regulatory independence where private investors are to enter the sector, but was silent on the role of regulatory independence when regulating SOEs. It suggested specific measures to enable an effective separation of the roles and responsibilities for policy making and regulation:

Where independence of the regulator occurs, it is evident that there is scope for conflict with the policy-makers over the respective roles that these two play. A division of roles that still supports independence is one where the policy-maker is responsible for the framework within which the decision is made but the regulator is responsible for (and independently determines) the decision itself. Conflict may still arise in this situation if the framework is vague and non-specific. In such a scenario the regulator is forced to use far greater discretion in order to determine what policy-makers intended. It is therefore recommended that the legislative framework and underlying policy documents are more detailed such that have (sic) a greater degree of confidence over the likely outcomes of decisions made by the regulator. (ibid: 2).

The report further proposed that sector regulators should not be appointed or be accountable to the line or shareholding Ministry, but should be appointed by, and accountable to Parliament (ibid: 3).

The report further argued in favour of retaining the *status quo* with respect to the absence of the right to appeal regulatory administrative decisions (for instance the regulation of market entry or tariff setting), while regulatory decisions in response to a legal infraction (for instance, a breach of licence conditions) should be appealable to a High Court.

2.2 Literature on Africa and beyond

A large body of literature on economic regulation in developing countries has emerged over the past two decades. While space and time does not allow for a comprehensive review, a sampling is provided here, drawing mostly from existing reviews, and from recent work focussed on developing and middle income countries – all of which has direct for South Africa.

The development of this literature closely mirrored the rapid increase in the number of regulatory agencies as countries reformed and liberalised their infrastructure sectors. By 2006 this development culminated in the publication of the Handbook for Evaluating Infrastructure Regulation by the World Bank (Brown, Stern, Tanenbaum, & Gencer, 2006)⁶.

⁶ Other important sources that provide criteria for assessing the impact of regulators on sector performance include Correa, Pereira, Mueller & Melo (2006) and Stern & Cubbin (2005).

Brown *et al* distinguish between “Regulatory governance” and “Regulatory substance”. Regulatory governance refers to the “how” of regulation, in other words the legal and institutional framework that establishes the totality of the regulatory regime. The “Regulatory substance” refers to the type, nature and content of regulatory decisions. They emphasise that for a regulatory assessment not to be seriously deficient it will have to consider both areas of regulatory performance (p. 21).

Brown *et al* identify three “meta-principles” that have to apply for *regulatory governance* to be effective, namely:

- “Meta-Principle 1: Credibility—Investors must have confidence that the regulatory system will honour its commitments.
- Meta-Principle 2: Legitimacy—Consumers must be convinced that the regulatory system will protect them from the exercise of monopoly power, whether through high prices, poor service, or both.
- Meta-Principle 3: Transparency—The regulatory system must operate transparently so that investors and consumers “know the terms of the deal.”

They also identify a fourth meta principle that applies to *regulatory substance*:

- Meta-Principle 4: Efficiency—the regulatory system should promote pricing and production efficiency. (ibid: 55).

They proceed to list 10 principles that are designed to implement the four meta-principles. These principles are a distillation from the findings of the growing body of literature on this topic and are worth repeating here (with only minor editorial changes for the sake of brevity):

1. Independence

Infrastructure regulators should be adequately insulated from short-term political pressure, and should by law, be free to make decisions within their scope of authority without having to obtain prior approval from other officials or agencies of the government.

2. Accountability

Regulators need to be held accountable for their actions. The mechanisms for ensuring accountability include the following:

- Appeal rights for parties believing their interests are harmed by regulatory agency decisions that have been made against the requirements in the law, either on process or on substance.

- Substantive reporting and audit obligations.
- Oversight or performance reviews through evaluations and hearings.
- Ethical and procedural obligations.
- Extensive transparency obligations (for example, relating to regulatory decisions and their justification).

3. Transparency and Public Participation

The entire regulatory process must be fair and impartial and open to extensive and meaningful opportunity for public participation. The following are recommended with very limited exceptions:

- All documents and information used for decision making should be available for public inspection.
- All procedures by which and criteria upon which decisions are made should be known *in advance* and made publicly available. (*emphasis added*)
- No major decision should be made by a regulatory agency without being set down in a publicly available written document. The document should include the following:
 - A clear statement of the decision.
 - A description and analysis of all evidence taken into consideration.
 - A summary of the views offered by participants to the proceedings.
 - A full discussion of the underlying rationale for the decision.

4. Predictability

The regulatory system should provide reasonable, although not absolute, certainty as to the principles and rules that will be followed within the overall regulatory framework. The following are recommendations for changes in that framework:

- Changes should occur only after extensive public notice and consultation so that stakeholders have a meaningful opportunity to provide feedback to decision makers before the change is implemented.
- To the extent possible, changes should be instituted gradually.
- Regulatory decisions and policy determinations, including laws and governing regulatory decisions, should apply prospectively and never retroactively.

5. Clarity of Roles

The role of the regulatory agency should be carefully defined in law. Similarly, the roles of other sector agencies (either government or nongovernment) should be carefully defined to avoid the following:

- Duplication of functions.

- Interagency conflicts.
- Mixed signals to stakeholders.
- Policy confusion.

6. Completeness and Clarity in Rules

The regulatory system, through laws and agency rules, should provide all stakeholders with clear and complete timely advance notice of the objectives that will be pursued in carrying out regulatory activities, principles, guidelines, expectations, responsibilities, and consequences of misbehaviour.

7. Proportionality

Regulatory intervention in the sector should be proportionate to the challenges the regulators are addressing:

Intervention should be the minimum necessary to remedy the problem being addressed and should be undertaken only if the likely benefits outweigh the expected economic and social costs.

Regulators should have an array of powers and remedies at their disposal in order to ensure that they possess the ability to calibrate their actions to the circumstances faced.

8. Requisite Powers

Regulatory agencies should, under the law, possess all powers required to perform their mission. Those powers should, at a minimum, include the authority for the following:

- To set tariffs for regulated entities.
- To establish, modify, and monitor market and service quality rules.
- To address market power and market design problems adequately.
- To carry out normal administrative functions.
- To investigate, as well as adjudicate or mediate, consumer complaints.
- To provide dispute resolution facilities for the regulated entities.
- To compel the provision of needed information.
- To monitor and enforce its decisions, and to remedy problems.

9. Appropriate Regulatory Capacity

Regulatory agencies must be able to consistently perform professionally, competently, and thoroughly, which requires the following:

Compensation and education or training opportunities for commissioners and staff that are competitive with what is available at regulated entities.

- A reliable, adequate, and independent source of revenue and adequate budgets.
- The ability to retain outside consultants when needed.
- Commissioners who are appropriately insulated from short-term political repercussions.
- Regulatory decisions that are, if possible, made by a board of three or five commissioners who come from diverse professional backgrounds.

10. Integrity

Strict rules governing the behaviour of decision makers should be in place so as to preclude improprieties or any conduct appearing to be improper. The rules governing behaviour should be fully, fairly, and vigorously enforced so as to tolerate no breaches. Included among the subjects to be covered by ethical rules should be the following:

- Prohibition against bribes and gratuities of any kind.
- Prohibition of all forms of conflicts of interest.
- Prohibition against any form of preferential treatment.
- Reasonable disclosure of financial interests.
- Prohibition of use of inside information for personal gain.

Anton Eberhard has produced an important body of work on the governance and regulation of power sector SOEs in Africa. Examples of this work includes Eberhard A. , Rosnes, Shkaratan, & Vennemo (2011), Eberhard, A (2011), Eberhard, A (2007a), Eberhard, A (2007b), and Newbury and Eberhard (2008).

Michael Pollitt has produced a number of econometric studies of regulation, governance and performance issues in the power sector. In a recent paper, Pollit and Stern present:

... strong evidence that there are significant human resource constraints which limit the scale and, hence, the scope and potential effectiveness of electricity/energy regulatory agencies in developing countries. (Pollitt & Stern, 2009)

Their research findings are compared to earlier work conducted in 2001/2 and they conclude that "little has changed over the intervening period" (*op cit*).

Lastly, the World Bank commissioned the development of an annotated reading list on infrastructure regulation which has been published as Jamison & Berg (2008).

3 Brief review of the sectors

This section provides a brief review of the salient aspects of the four sector cases investigated for this study. The aim here is only to provide sufficient background to each sector to enable meaningful consideration of the case material in the section below on "Findings".

3.1 Electricity: Eskom and Municipalities

The electricity sector was one of the first infrastructure sectors to be subjected to independent economic regulation with the establishment of the National Electricity Regulator in 1995 as the successor of the Electricity Control Board. The NER was given powers to regulate market entry (licensing), conduct, and tariffs for electricity sector participants. With the promulgation of the National Energy Regulator Act (no 40 of 2004) in March 2005 the NER was amalgamated, with the new regulatory functions for the petroleum pipeline and piped gas industries, into the new National Energy Regulator of South Africa (NERSA). NERSA members are appointed by the Minister of Minerals and Energy.

The Electricity Supply Industry (ESI) consists primarily of Eskom, which undertakes the full gamut of the power sector value chain from generation, transmission, distribution and retail, and Municipal electricity distributors who are primarily responsible for distribution and retail activities in most urban areas, while some large metros also operate power stations and high voltage transmission lines. More recently an increasing number of smaller private sector independent power producers (IPPs) have entered the sector.

Almost all IPPs sell their power to Eskom, but make up a very small fraction of electricity produced in South Africa. Eskom is responsible for approximately 95% of power generation and almost all long distance high voltage power transmission in South Africa (Eskom Holdings Limited, 2011). In 2010/11 Eskom distributed 224446 GWh of electrical energy to over 4.6 million customers. Municipal distributors serve more end consumers than Eskom, but distribute less energy.

Eskom faces a myriad of performance challenges. First amongst these are:

- Its ability to maintain system stability and security of supply while it faces a very tight capacity situation. Eskom now makes maximum use of its installed capacity of aging plant, which increases the need to do preventative maintenance. However, its low reserve margin makes it hard to find sufficient time to take plant out of operation for scheduled maintenance. The result has been an increase in unplanned outages and a reduction of the reserve margin. Eskom currently has to use its open cycle gas turbine stations (OCGTs) on almost a daily basis to maintain system stability.
- The selection of economically appropriate capital projects and other expenditure programmes.

- The procurement and project management of the construction of its large new power stations, Medupi, Kusile and Ingula to be on time and within budget.
- Financing its capital expansion programme while containing electricity price increases to reasonable levels.
- Obtaining and retaining appropriately skilled human resources.

Municipal electricity distributors have their own challenges. These include:

- Their struggle with the most basic aspects of their operations, such as providing an acceptable service to their customers and collecting revenues.
- With a few exceptions, their systems suffer from long running under investment in appropriate maintenance and replacement of aging network infrastructure. The net effect of this large backlog in network refurbishment has been a steady reduction in the reliability of their service, and increased local power failures. This is perhaps the largest challenge in the municipal sector.
- Containing their high tariff increases.

These widespread problems are in turn caused by the fact that:

- municipalities are dependent on electricity revenues to cross subsidise other municipal services, and rates and taxes. Too often this has meant that network maintenance and refurbishment has been neglected in favour of other types municipal expenditure.
- Municipalities have severe problems with attracting and retaining appropriately qualified city electrical engineers and other skilled technical personnel.

The sector suffers from a range of unresolved policy contradictions and other policy problems. For instance the funding model of local government, which relies heavily on electricity sector profits, results in unsustainable network management practices that reduces quality and reliability of supply, while electricity tariffs continue to rise. Furthermore, because electricity reticulation is classified at a municipal power and function in terms of the Constitution, it has been unclear whether NERSA, an organ of national government, has the competency to regulate it. In effect the existing funding model of local government (relying heavily on surplus electricity revenues) is in conflict with the policy decision to establish an electricity regulator who, amongst other objectives, is required to set tariffs on a cost recovery basis. This policy contradiction has not been resolved.

A further example of unresolved policy contradictions can be observed with Eskom, which is required to undertake a large capital expenditure programme with the construction of new power stations, each of which costs more than the entire book value of Eskom's regulatory asset base at the outset of the programme. However, the cost of the capital programme is in

essence unaffordable. Despite the high tariff increases allowed in recent years⁷, NERSA has not been prepared to increase tariffs in accordance with the legal requirements and with its own regulatory methodology, partly in response to stakeholder and political pressure⁸. As a result Eskom's ability to service new debt has been limited and it has thus struggled to fund the programme, despite a number of Government bailouts⁹.

In the end, tariff increases in the power sector are, in the first instance, driven by the nature of the capital programmes power sector companies or municipalities commit to. For instance the choice of the power stations that Eskom constructs, or agrees to buy from in the case of IPPs, determines its capital and fuel costs, or the cost of power from IPPs – all of which makes up the bulk of its cost structure. These decisions will thus be pivotal for future tariffs and essentially become the main driver of sector performance.

While space does not allow for a complete treatment of this question suffice it to say that Eskom (and by implication Government's) choice to construct Kusile power station is highly controversial in the context of apparently cheaper conventional sources of power from the Southern African region (particularly from Botswana and Mozambique), and in the light of the enormous natural gas resources (with the potential to generate cheaper power) that will become available from Mozambique in the foreseeable future and from other potential sources in Southern Africa.

By the time NERSA was presented with the licence application for Kusile, Eskom claimed that the contracts had already been placed (with Government approval) and that the penalty clauses for cancellation would be punitive if the project were to be cancelled if the licence was not awarded. In effect NERSA's theoretical role to provide independent review of such commitments was bypassed and it was pressurised into issuing a licence.

The continued promotion by the DOE of their R8bn "Peaker Project", which will have to be purchased by Eskom, appears to be a further example of inappropriate project promotion by Government¹⁰.

⁷ In terms of its second Multi-Year Price Determination (MYPD II) NERSA allowed Eskom tariff increases of 24.8%, 25.8%, 25.9% respectively for implementation in 2010, 2011, 2012.

⁸ Despite stating that Eskom should receive a return on assets of 8.16% (pre-tax, nominal) Eskom was only allowed 0.8% return on regulated assets for 2010. However, in terms of the Electricity Pricing Policy Eskom tariffs should be moved to cost reflective levels over a five year period (Department of Minerals and Energy (2008) Electricity Pricing Policy (EPP) of the South African Electricity Supply Industry, GN1398, 19 December 2008). It is unclear when the five year period is measured from, and whether this statement contradicts the Electricity Regulation Act (Act 4 of 2006 as amended), which requires tariffs to recover costs.

⁹ The fact that NERSA's tariff methodology for Eskom allows it in principle to benefit from counting capital works under construction as part of the regulatory asset base (in contrast to the tariff rules for Transnet Pipelines and the ACSA), did not mean much in practice.

¹⁰ See for instance the objection to the project by Premium Power at:

Delays in the early 2000s with finalising the policy position on whether Eskom would be required to construct further power station capacity resulted in a rushed approach to construct Medupi and Kusile. The Medupi project was started in 2006 without a final design or funding model. Despite a drastic reduction in its capacity to undertake construction management of large projects Eskom decided to undertake the role itself, rather than relying on a turnkey EPC agreement. At least 6,000 modifications were implemented to the original design for steel fabrication between January and March of this year alone. While the first unit (unit 6) was scheduled for early 2012, Eskom has now conceded that it could possibly only be delivered around September 2013 (Creamer, 2011).

The nature of power station project commitments appears to be far from optimal for South Africa, with inadequate checks and balances to ensure that projects adhere to the published policy framework such as the 1998 White Paper on Energy Policy and the relevant legislative frameworks. DOE have recently proposed amendments to the Electricity Regulation Act (4 of 2006, as amended) that will enable the minister to instruct NERSA to licence power projects. If these changes were to be implemented the existing conflict of interest in DOEs two roles of policy development and project promotion (e.g. the Peaker Project and potentially nuclear projects), could be exacerbated by adding a new economic regulatory function of access regulation.

The problematic experience with project selection for conventional plant contrasts with the process that was followed to procure the first round of renewable electrical energy projects. An open bidding round was held with extensive project documentation made available upfront. The competitive bidding process was independently adjudicated and the awards announced on 7 December 2011.

3.2 Transport: Transnet

Transnet has positioned itself as a focussed industrial freight transport company. Transnet's primary divisions are as follows (revenue contribution in brackets): Transnet Freight Rail (58.8%), Transnet National Ports Authority (19.3%), Transnet Port Terminals (16.7%), Transnet Pipelines (3.0%), and Transnet Rail Engineering (2.2%) (Transnet SOC Limited, 2011). Transnet Pipelines (TPL) is subject to economic regulation by NERSA, and Transnet National Ports Authority (TNPA) to economic regulation by the Ports Regulator¹¹.

<http://www.nersa.org.za/Admin/Document/Editor/file/Consultations/Electricity/Presentations/Premium%20Power.pdf>. NERSA declined to issue a licence and referred the project back to DOE on the basis of a legal technicality (The present author is a director of Premium Power).

¹¹ In terms of the National Ports Act (12 of 2005) port operators, including Transnet Ports Terminals, are subject to economic regulation by TNPA. Other than pointing out the obvious conflict of interest inherent in this structure, in the interest of brevity this arrangement will not be further discussed in this report.

3.2.1 Transnet Pipelines

The Petroleum Pipelines Act (60 of 2003) (PPA) provides for market entry, conduct and tariff regulation of “petroleum pipeline”, “petroleum loading facilities”, and “petroleum storage facilities”. The act came into operation in May 2004, and since then a substantial body of experience has been accumulated around the licensing and tariff setting of Transnet’s pipeline, loading and storage operations.

While Transnet Pipelines (TPL) dominates the Petroleum Pipeline sector at least two private sector players attempted to enter the sector following the establishment of the new regulatory regime. In October 2006 a private company, Petroline (Pty) Ltd submitted a licence application to NERSA to construct a petroleum pipeline from the border with Mozambique near Komatipoort, to Kendal via Nelspruit, and a petroleum storage facility in Nelspruit. This licence was granted in March 2007¹².

Shortly afterwards, in April 2007 TPL submitted their licence application to NERSA to construct a 24 inch trunk line and associated operating terminals between Durban and Jameson Park in Gauteng¹³. With its application Transnet submitted a 2006 letter from the former Department of Minerals and Energy requesting it to configure the line at 24” for security of supply reasons. This configuration was larger, and thus more expensive than what it would otherwise have constructed.

In June 2007, before it adjudicated the Transnet application, NERSA received a licence application from the IPayipi consortium to build a line to connect to the TPL inland network over roughly the same route. The IPayipi application also included a letter from the DG of the Department of Minerals and Energy supporting “all positive endeavours from the private sector to invest in infrastructure pertaining to the petroleum industry which are in accordance with legislation”. The letter also emphasised the importance of security of supply considerations and the need for “increased pipeline capacity to the inland market”.

The PPA requires NERSA to “promote competition in the construction and operation of petroleum pipelines, loading facilities and storage facilities” (Section 2(a)). NERSA thus proceeded to consider both applications. In the end the licence was awarded to TPL, despite the fact that both applicants had specified pipeline sizes (and costs) that would entail surplus capacity for a considerable period of time – apparently in response to DME’s (unpublished) policy of promoting spare pipeline capacity from the coast¹⁴. No explicit funding mechanisms were proposed by DME to pay for the additional cost to provide the security of supply capacity,

¹² Petroline were not able to bring the project financial close and citing unfair tariff treatment by NERSA and the Department of Energy announced in August 2011 that they are cancelling the project.

¹³ The application also requested permission to construct two 16 inch lines to alleviate bottlenecks in its inland distribution network.

¹⁴ Depending on the pipeline configuration implemented it appears that a commercial case could only be made out for a 16” or 20” pipeline at the time (Crompton, 2011).

and it was thus assumed, by implication, that the extra costs would be recovered from the tariff paying users of the pipeline.

From the outset of the regulatory regime TPL's tariff levels were heavily criticised by some stakeholders for being too high, despite real tariff levels falling drastically in real terms over the past thirty years.

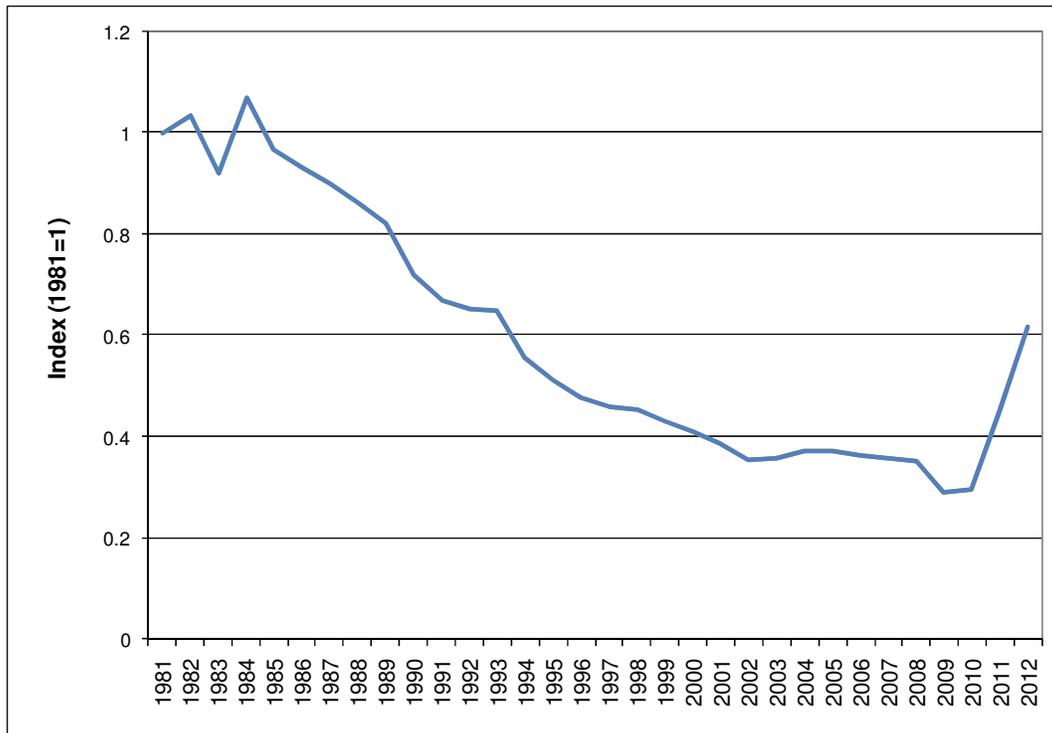


Figure 1: Real index of Transnet Pipelines' average tariffs

(Source: Transnet)

When Transnet's annual tariff adjustment application to NERSA included the cost of works under construction (WUC) of the NMPP project as part of the regulatory asset base (RAB), some stakeholders objected strongly and argued that it was not allowed in terms of the PPA and associated regulations and implied that legal action could follow if NERSA allowed this part of Transnet's application¹⁵. NERSA agreed with the objections and refused the inclusion of the NMPP WUC costs while the project was still being constructed. This implied that tariffs would remain at historically low levels during the construction period, and that Transnet had to cover the construction financing cost from other cash flows. Given that the NMPP cost was a multiple of the RAB at the time, this approach simply postponed and compounded the need to drastically increase tariffs.

¹⁵ No prohibition on including WUC in the RAB appears in the PPA. The PPA simply requires that tariffs should allow the licensee to "recover the investment" and "make a profit commensurate with the risk" (Section 28(3)(a) and (c)).

In the event the NMPP cost estimates also continued to escalate as is shown in Table 1. NERSA's methodological approach of excluding WUC from the RAB combined with the cost escalations resulted in an enormous increase in the tariffs that would be required when the NMPP assets came into operation. It became apparent that such high tariff increases would be politically intolerable for both Transnet and NERSA. At least one private sector stakeholder, as well as NERSA and ultimately also Transnet, argued that Government should find an alternative funding mechanism to assist with the portion of the cost that was incurred for security of supply purposes.

In June 2010 Government agreed to place a 7,5c/l levy on the retail price of fuel in order to generate tax revenues for a R1.5bn pa grant to Transnet over a period of three years, totalling R4.5bn (subject to VAT and Income tax). The funding was calculated on the assumption of a capital cost of R15.4bn for the NMPP and was provided on the basis of DME's requirement for "security of supply over the long term"¹⁶.

The additional capacity required for the NMPP project is a good example of an unfunded mandate imposed by a Government Department on an SOE. When a crises erupted around the tariffs that would be required to pay for the additional cost of the larger line requested by DME (including the project cost overruns), Government was forced to implement an alternative funding mechanism to make up the funding gap and reduce the tariff impact.

3.2.2 Ports

The Ports Regulator was established in August 2005 with the promulgation of the National Ports Act (Act 12 of 2005). Section 30(1) of the Act determines that the Ports Regulator's economic regulatory mandate is to:

- exercise economic regulation of the ports system in line with government's strategic objectives;
- promote equity of access to ports and to facilities and services provided in ports;

Table 1: NMPP cost escalations

Date	Transnet Forecast (R bn)
January 2006	7.0
April 2007	9.5
September 2007	11.0
February 2009	12.6
January 2010	15.4
January 2011	23.4

Table 2: TNPA tariff applications and tariff awards.

Year	TNPA application	Ports Regulator award
2010/11	10.62%	4.42%
2011/12	11.91%	4.49%
2012/13	18.06%	??

¹⁶ "Grant funding agreement entered into by en between the Government of the Republic of South Africa... and Transnet Limited...", dated 22 June 2010.

- monitor the activities of the Authority to ensure that it performs its functions in accordance with the Act.

The level and structure of ports tariffs have been the subject of many complaints from ports users and stakeholders. South Africa's remoteness from its main trading partners places a large premium on minimising logistics costs. Given its mandate, the Ports Regulator and TNPA have been at loggerheads over tariff adjustments as is shown in Table 2. The structure of TNPA's tariff book, particularly its high charges for cargo dues has become highly controversial. The Regulator has pressurised TNPA to propose revisions to its tariff book in order to bring it into line with modern practice and the requirements of the legislative and policy framework. While TNPA has dragged its feet with this process (because it will inevitably result in a reduction of its revenues) it has now been forced to commit to a process to revise its tariffs by March 2012 (Buthelezi, 2011).

Given the tone of the Regulator's 2011/12 tariff decision it appears unlikely that the 18.06% increase application for 2012/13 will be approved.

While there are many unresolved policy issues relating to the TNPA, a key problem behind the tariff related problems relates to the current use of cash generated from TNPA operations to fund Freight Rail capital expenditure. Simply put, TNPA contributes approximately R2bn cash per year to the funding requirements of the large capital programme underway in Freight Rail. Government has not provided an alternative funding solution.

The effect is that two *de facto* policies are in direct conflict. On the one hand Transnet managers are working to implement and fund all their capital project and operational commitments from their pooled cash flows, while the Ports Regulator has been mandated to drastically reduce TNPA's high tariffs (and thus its revenues) and thus effectively undo part of the funding model that supports Transnet's capital project obligations. Inevitably this situation leads to counterproductive conflict and frustration for stakeholders and the parties involved and has obstructed appropriate improvements in tariff levels and structures for TNPA services. From Transnet's point of view this fundamental policy contradiction has contributed to conflict and prolonged uncertainty about regulatory methodologies as it tries to protect its revenues.

The Ports Regulator itself, while facing a large regulatory challenge, has had to complain that inadequate funding and skills shortages hampers it in the execution of its duties. The limited capacity of the Regulator has further exacerbated regulatory uncertainty and delayed resolution of the larger policy problems with Government.

3.2.3 Rail

The Department of Transport has indicated that it wishes to establish an economic rail regulator to regulate rail prices and access to the network by other operators. Progress seems to be slow, leading Transnet to comment in its 2011 Sustainability report that "the rail policy framework for such regulation, however, remains unclear" (Transnet, 2011, p. 50).

More recently the Director General of Transport discussed the:

...ultimate goal of establishing a Single Transport Economic Regulator (STER) responsible for economic regulation of all modes of transport.

The STER Task Team envisages completion of undertaking the development of legislation frameworks for the Single Transport Economic Regulator by June 2012. Thereafter, the Cabinet process to pass the developed legislation will begin in June 2012 and (sic) anticipated to finalise it latest end of January 2013. Therefore, the roll-out to establish the Single Transport Economic Regulator will be from February 2013 and onwards. (Mahlalela, 2011)

Freight Rail generates more than 50% of Transnet's turnover. A rail economic regulator could substantially impact on its investment and operational activities. Any decision to establish a rail regulation is likely to involve a fundamental change to the institutional model for the Transnet Freight Rail operations.

3.3 Aviation: Airports Company of South Africa

The Airports Company of South Africa (ACSA) owns and operates the infrastructure and facilities of all the major international airports in South Africa. It therefore has an effective monopoly over internationally scheduled flights to and from South Africa. ACSA's shareholding vests with the Department of Transport and its Board is appointed by the Minister of Transport.

ACSA is regulated by the "Regulating Committee" - a statutory body established in terms of the Airports Company Act (Act 44 of 1993), mandated to perform tariff regulation for both ACSA and Air Traffic and Navigation Services (ATNS). The Regulating Committee does not regulate market access. The Regulating Committee is also appointed by the Minister of Transport. Furthermore, tariff proposals approved by the Regulating Committee have to be approved by the Minister of Transport.

Section 11(6) of the Act determines that all administrative work in connection with the performance of the functions or the exercise of the powers of the Committee shall be done by officials in the Department designated for such purpose by the Director-General: Transport.

In recent years ACSA undertook a large capital investment programme to upgrade and expand its facilities and construct a new international airport at La Mercy in KwaZulu Natal (KZN): the King Shaka International Airport (KSIA), which was completed in 2010. While ACSA was not opposed to the construction of KSIA it did not consider it to be necessary or viable before between approximately 2017 – 2020. According to ACSA their project model was designed to be economically viable and would be driven by passenger volumes and would not require the closure of the existing Durban International Airport (ACSA, 2004). Viability was expected to be reached when traffic volumes reached 5 million, however this calculation was based on the optimistic cost estimates for the project at the time. The final budget for the project was R3.15bn, but in the end it was expected to cost in excess of R7.6bn (Naidoo, 2010). With the soccer World Cup in 2010 total volumes for the 2010/11 year reached 4.9 million.

ACSA came under severe political pressure (from across the political spectrum) to construct KSIA prematurely. However, as late as March 2010 the economic value of the airport was still being questioned by the CEO of the Board of Airline Representatives of South Africa, Alan Moore:

There is nothing at this airport that would have warranted the spend on the facility... The new facility was built with little or no consideration of the general aviation community and a number of operators in this sector in Durban are under threat. (quoted in Naidoo, 2010).

Its capital expenditure programme, of which KSIA was the largest component, caused ACSA to apply for a tariff increase of 133%, prompting Moore to claim that:

The increase in passenger charges and landing and parking fees for the airlines, countrywide, was totally unnecessary and against the will of the international airline community. The cumulative effect on the airlines is a rise in the cost for every available seat mile, which may lead to a drop in the viability of the South African route for some of the marginal airlines and airlines with a less developed route network. (ibid)

IATA's Director for Industry Charges: fuel and taxation, Jeff Poole, stated that:

Quite simply, the extravagance that is King Shaka International Airport cannot be justified. There is no sustainable business case underpinning its rushed development. Local and international airlines agree that the airport is premature with insufficient traffic or demand to support it.

Airlines support the user pays principle, and are willing to pay for the use of facilities that add value, deliver efficiencies and provide a value-for-money service. But why should they pay for the construction of an airport that is not needed, and which most airlines do not even plan to use? As would be the case in any other industry, surely Acsa's shareholders, which have earned handsome dividends over the past 15 years, should recapitalise the company so it can fund its own capex programmes? (ibid).

However, the Director General of Transport recently defended the decision to build KSIA and criticised the former chief executive officer of ACSA for being critical of the proposal to construct it earlier (Mahlalela, 2011).

ACSA thus embarked on its capital expenditure programme without an equity injection in the expectation of funding it by raising debt. The Regulating Committee ruled that it would not be able to raise tariffs during the construction process (i.e. it would not be able to earn a return on works under construction). ACSA in turn warned that this would lead to the need for higher tariff increases when assets were finally commissioned (ACSA, 2010). ACSA had its credit rating downgraded by Fitch in 2009 as a result of its large capital expenditure programme, the absence of an equity injection and pressure on its tariffs (ibid). ACSA was thus forced to approach the Regulating Committee with the aforementioned request for a 133% tariff increase for the 2010/11 period. The Regulating Committee awarded a much lower tariff increase profile

(see Table 3). ACSA consequently approached the courts in April 2010 to have the tariff set aside and to seek a material review of the regulatory regime and related processes. The application succeeded on the basis that the Regulating Committee changed the tariff methodology without obtaining the permission of the Minister of Transport, as required by the Act. The Minister of Transport subsequently appointed a Task Team to advise him on the way forward. Following the Task Team report tariff increases as shown in Table 3 were implemented in October 2011 following the final approved by the Regulating Committee.

Table 3: ACSA 2009 tariff application.

PERMISSION PERIOD	Regulator's Tariff Increase notification after Task Team report (October 2011)	Regulator's Final Tariff Increase Notification (March 2010)	Regulator's Draft Proposed Tariff Increase (January 2010)	ACSA's Permission Application (September 2009)
2010/2011	33.0%	40.7%	59.9%	132.9%
2011/2012	70.0%	25.6%	25.0%	24.4%
2012/2013	5.0%	14.2%	3.7%	0.0%
2013/2014	5,6%	5.5%	5.5%	0.0%
2014/2015	5.5%	5.6%	5.6%	0.0%

Source: <http://www.acsa.co.za/home.asp?PID=94&ToolID=2&ItemID=6825>; and

<http://www.politicsweb.co.za/politicsweb/view/politicsweb/en/page71654?oid=251959&sn=Det>

These tariff hikes have led to widespread concern in the industry. Informed commentators concluded that:

...the real problem lies with the recent compromising of the arm's length relationship that should exist between ACSA and Government through Government's pressuring of ACSA to build infrastructure like King Shaka; infrastructure that is neither needed by, nor affordable to, industry in the current economic climate. (World AirNews, 2010)

3.4 Telecommunications: Telkom and Broadband Infraco

Telkom, the dominant national fixed line communications provider, was partly privatised in 2007. Currently Government's 39.8% shareholding in Telkom is held through the Department of Communications. A further 10.9% is held through the Public Investment Corporation (at 31 March 2011).

A controversial aspect of the partial privatisation was that, against specialist policy advice provided at the time, Telkom was given a five year monopoly period in its core business areas of fixed line communications, as part of the policy of "Managed Liberalisation" (Gillwald, 2011). In return Telkom had to extend fixed line infrastructure to rural and underserved areas, roll out public phones and upgrade its telephone exchanges from analogue to digital technology. This policy of constraining competition was contrary to the global evidence that demand for

affordable ICT services were best met through effectively regulated markets (ibid). As feared, this approach soon led to widespread accusations of monopoly abuse by Telkom. At the time of writing (December 2011) Telkom was defending itself against an indictment of abuse of dominance in front of the Competition Tribunal.

Ten years after its initial privatisation industry commentators remained critical of the performance of the sector, and attributed problems largely to weak regulation, unclear policy mandates and structural conflicts of interests for the state:

The market remains structured around vertically-integrated incumbents (a number significantly owned by the state), and ineffectually regulated in several critical areas, partially as a result of structural conflicts of interest in the institutional arrangements of the state, particularly the Ministry of Communications – which has responsibility both for protecting and growing state assets in the sector and, paradoxically, for developing the competitive policy framework. The combined effect is a sector committed in principle to reaping the benefits of competition through use of the market to efficiently allocate resources, but which in practice is not characterised by effective market operations and is in fact currently marked by increased concentration of state ownership, market distortion and indeed, significant limitations on competitive entry. (Esselaar & Gillwald, 2007)

South Africa has steadily slipped down international sector comparative indexes in recent years. In the World Economic Forum e-Readiness Report, South Africa fell from 34th in 2004 to 61st in 2009. On the International Telecommunications Development Index South Africa has slipped from 77th in 2002 to 91st in 2007 (Gillwald, 2011). Gillwald argues that these negative outcomes are the direct result of the failed policy of “managed liberalisation” (2007). She further explains that:

There is increasing evidence of links between broadband penetration and economic growth...

...Today, ICT and broadband networks are at the core of economic-recovery strategies from the United States to Australia, from Singapore to Mauritius. (2011)

While the former Public Enterprises minister, Alec Erwin, shared the view of the importance of access to low cost broadband, contrary to the broad based consensus of international experts, he held the view that the market failed to provide adequate broad band service, rather than accepting that “managed liberalisation” which resulted in undue market power for Telkom, failed to provide a proper competitive market and thus disincentivised investment by private investors¹⁷ (Gillwald, 2007). In 2006, without prior public consultation (Gillwald, 2007, p. 65) the Minister of Public Enterprises spearheaded the creation of Broadband Infracore Limited (Infracore)

¹⁷This view echoes statements by Cabinet ministers around 2004 who claimed that the market failed to provide private investors in power generation, despite the fact that Government had not taken steps to establish a credible power market or curb the monopoly power of the vertically integrated incumbent, Eskom.

as a national and international fibre broadband alternative to the fixed-line incumbent, and initiated a process whereby the broadband backbone infrastructure developed by Transnet and Eskom (initially earmarked to become part of the Second Network Operator), was made available to it (McLeod, 2011).

To date Infraco has not achieved much success. By September 2010 it had not launched its service offering (Muller, 2010). By the end of March 2011 Infraco had received a total of R1.8bn of public capital injections. It made a loss of R207m in the 2011 financial year and received a qualified audit due to having incurred irregular expenditure of R151m and fruitless and wasteful expenditure of R1,9m, leading the current minister of Public Enterprises to express his “grave concern” (McLeod, 2011). Since then the Board had been reappointed and the CEO replaced with a former DPE employee. The company is struggling to overcome allegations of widespread corruption and malpractice. Despite claiming in May 2011 that “the company is on the mend” (McLead, 2011), by November 2011 the acting CEO was forced to concede to Parliament that:

It will take time to clean up. We may still have to table irregular expenditure going forward... It will take four to five years to become profitable. (SAPA, 2011b)

The Chief Financial Officer stated that the new management was inundated by demands for payment from creditors, without knowing whether their predecessors had concluded legitimate contracts with these companies. He further claimed that:

The knowledge of the PFMA (Public Finance Management Act) at Infraco was at a shocking level. People did not have an understanding of what is irregular and wasteful expenditure...

We are finding suppliers calling for outstanding payments and the suppliers have more information about the contracts than we have internally. Every week we get two e-mails from creditors. (ibid).

The Government responded to the failure of a semi-privatised monopoly SOE (Telkom), and its weak regulator (ICASA), by creating another SOE (Infraco), rather than resolving the fundamental structural problems that existed in the sector. These problems stemmed from the initial policy decision to privatise a dominant monopoly infrastructure provider, rather than “engineering” effective competition in the sector. Additionally, the inherent conflict of interests created by retaining the roles of sector policy maker, of shareholding ministry, and of the appointing authority for the regulator (ICASA), all within the Department of Communications, remained intact.

Commentators generally agree that a much better alternative would have been to resolve the Department of Communication’s conflicts of interest, and to have strengthened the competition to Telkom by clarifying the policy framework and empowering the regulator to fulfil its functions to further promote competition in the market.

4 Findings

The sector case material, set out above, out of necessity provides only a partial snapshot of the complex role that economic regulation has had in each sector. Considered with the literature reviewed, the case material does allow a basic analysis of the problems and challenges for economic regulation and of its impact on SOE performance in South Africa.

4.1 Problems with economic regulation of infrastructure sectors in South Africa

In many areas regulatory practice has continued to develop and the quality of decisions have improved. The widespread frustrations with rising infrastructure tariffs, and in some cases poor service quality or reliability, might detract from the value that regulators already add to governance of the infrastructure sectors. Key benefits of regulators include:

- Much greater transparency and more informed public debate about infrastructure economic issues. Regulatory licence and tariff submissions, and the process of public hearing on tariff and other issues conducted by some regulators have greatly increased the available public information about SOE performance and infrastructure policy questions. On the long-term this is bound to benefit South Africa significantly.
- To the extent that regulators have contained tariff increases they have also contributed to a more pointed debate about the trade-offs to be made in large infrastructure investment decisions.
- At times regulators have also acted as an important check on the more excessive aspects of behaviour by senior officials or even ministers.

However, the research has shown that there is considerable scope for improving the benefits of economic regulation. In terms of either commission or omission, economic regulation was found to negatively impact on SOE management and performance in the following primary ways.

4.1.1 Regulatory frameworks are developed on an ad hoc basis and are often inconsistent

While there are similarities in the regulatory frameworks developed within the energy sector (compare petroleum pipelines and storage, with gas pipelines, and electricity), the regulatory frameworks across the sectors reviewed is inconsistent and appears almost *ad hoc* in nature¹⁸. The differences between the sectors cannot readily be explained by the characteristics of each sector, but are more likely to reflect the views of the specific sector officials responsible for the legislative frameworks and the (often foreign) consultants who advised them. The disadvantage

¹⁸ This finding is very similar to that of the Ten Year Review report prepared for the Presidency in 2003 (discussed above).

of this approach is that the regulatory frameworks established later did not benefit from learning obtained from those established earlier and at times repeated earlier mistakes etc. The situation also had the consequence that only a small number of experts in each sector have a good understanding of the regulatory issues in the sector, and that South Africa has not yet developed an adequate interconnected cross-sectoral community of regulatory experts that can serve on economic regulators; or act as advisors to regulators, their regulated entities, or policy makers.

4.1.2 Regulatory decisions are sometimes unpredictable, arbitrary or of poor quality

The predictability and standard of regulatory decisions is a key factor for the performance of regulated entities. It affects their general financial planning, and their ability to raise finance efficiently. Both the amount of debt that can be raised and the cost of debt (the interest rate) is substantially affected by the view taken by rating agencies and lenders of the amount and nature of “regulatory risk”. SOEs are regularly examined by rating agencies who scrutinise their expected financial performance and expectations about how future costs and revenues will be affected by factors such as the policy and regulatory regime, and expected trading conditions.

When the legal regulatory framework is ambiguous or incomplete, or when the regulatory tariff methodology is incomplete or is not properly applied (so that tariffs do not cover costs), SOEs are unable to convince rating agencies that they would be able to maintain sufficient cash flows to cover their debt service obligations with certainty. This state of affairs could lead to a downgrade in the SOEs credit rating, as was seen on 11 November 2011 when Moody’s lowered its outlook for Eskom and Transnet debt (this was at least partly the result of concerns about regulatory tariff setting).

4.1.3 Tariff increases are often unavoidably high, but still insufficient

High tariff increases are not necessarily an indication of poor regulatory tariff setting, but could reflect a more fundamental problem. The legislative framework (the relevant acts and regulations) under which regulators function generally requires them to set tariffs to cover costs and allow a return on assets commensurate with the risk associated with investing in the assets. With this framework regulators are thus (rightly) bound to set tariffs at an economic level. In practice regulators are able to exercise a significant degree of discretion about where this level should be. However, if SOEs invest in new infrastructure projects that effectively doubles or triples their total balance sheet values (as was the case in recent years, for ACSA, Transnet Pipelines and Eskom) the requirements of the legal framework implies that regulators will not be able to contain tariff increases to the general inflation rate. Under these circumstances high double-digit tariff increases for multiple years will be unavoidable if the regulator is to operate within the legal framework and ensure a modicum of financial viability for the SOE. This will be the case irrespective of whether the investments are financed from internal resources (cash generated from operations), debt, or equity injections.

The large tariff increases awarded by Regulators in recent years are nevertheless often not high enough to ensure the financial viability¹⁹ of the SOE during the peak of the investment cycle (in the absence of large equity injections, which, given the current economic climate, are increasingly unlikely). Therefore, if infrastructure capital costs should become unaffordable and threaten to damage the economy the focus should shift from concern about tariff increases (at a stage when it is too late) to an earlier stage when the nature of the capital projects that SOEs invest in is determined.

4.1.4 Regulators are unable to review new market entry and new capital projects effectively

The research consistently highlighted SOE problems with the choice and execution of capital projects. At times capital projects are not selected as part of their commercial mandate, but are effectively imposed on SOEs by politicians or senior government officials for political, “strategic” or social reasons. Such projects are typically not financially viable. Rather than approaching National Treasury for funding to make up the viability gap, politicians and senior officials often find it more convenient to pressurise the SOE to undertake these projects without providing a solution for the viability problem, or even bothering to properly quantify its size. The costs of such projects, sometimes referred to as “unfunded mandates” thus result in an additional increase in tariffs to existing consumers, who now effectively carry the cost of the subsidy the project requires. Recent examples probably include the decision imposed on ACSA to undertake the premature construction of the King Shaka International Airport, and the request to Transnet Pipelines to construct a larger NMPP pipeline project from Durban to the inland market.

Even if SOEs are not pressurised into inappropriate capital projects for political reasons, research has shown that SOE managers face inappropriate incentives and are often biased towards larger, and technologically more complex projects, rather than the more incremental or mundane solutions that would often be more appropriate and in the public interest (Steyn, 2006)²⁰. An example of this problem in the power sector would be the decision to construct Kusile power station rather than utilising a combination of lower risk and cheaper alternatives (which includes greater imports from proposed projects in Botswana and Mozambique).

While inappropriate political interference is common, it is doubtful whether it adheres to the requirements of the PFMA. Regulators are often empowered to regulate “market entry” through

¹⁹ Financial viability in this context refers to the ability to generate sufficient income to pay operating costs, meet debt commitments and, allow growth while maintaining service levels. Growth generally requires that the entity needs to maintain the capacity to raise additional debt and fund a portion of the new investment from cash flows or equity injections. The debt commitments required by existing and prospective lenders would typically include the requirement to maintain adequate interest cover ratios.

²⁰ In economic terms this can be viewed as a moral hazard problem in the context of the principle-agent relationship with SOE managers, and information asymmetry about the economic risk and uncertainty of large capital projects.

the mechanism of licensing new projects. In principle the legislative framework often empowers regulators to provide an independent review of the economics of new projects and thereby provides the potential for an important check-and-balance on decisions about large SOE capital projects. However, in practice, by the time the SOE approaches the regulator with the license application the decision is often a *fait accompli*, as was the case, for instance, with the Kusile decision; or regulators are simply not adequately resourced or interested in taking on the large vested interests behind such projects.

These problems of inefficient and inappropriate capital investment decision making, and unfunded mandates, appears to be one of the main causes of poor SOE performance and soaring infrastructure prices. If policy makers are serious about controlling soaring infrastructure prices, this is the problem will have to be tackled head-on. Focussing policy attention on the problem of the inevitable tariff hikes that follows from these decisions amounts to doing too little too late.

4.1.5 Regulators are unable to protect consumers against poorly executed SOE projects and cost overruns

Once SOEs are committed to capital projects, the next risk they (and ultimately their consumers) encounter is the possibility of substantial cost overruns. The majority of large SOE projects end-up costing much more than the budget amount on which the decision to proceed with the project was premised. Recent examples include the King Chaka International Airport, the NMPP pipeline project, and Medupi and Kusile power stations. Currently regulators can do very little about this problem. If such costs are disallowed from the rate base (i.e. they are not allowed to be recovered by tariffs) little will be achieved in the case of SOEs (particularly wholly state owned SOEs). The disallowed costs will inevitably be passed on to the tax payer, in the form of loss of dividend payments to the fiscus (and thus a greater need for tax revenues) or the need for SOE bailouts.

4.1.6 Regulators are not effective in preventing monopoly abuse

Many infrastructure SOEs are in a dominant if not a complete monopoly position in the parts of the sector value chain that they operate in. Regulators are often ineffectual in protecting other players from monopoly abuse by the SOE incumbent. Examples include ICASA's failure to introduce effective competition against Telkom, and the difficulties faced by private sector generators (including co-generators, renewable generators, and other IPPs) who would want to wheel their power over Eskom's transmission grids to their customers. Properly regulated competitive markets could go a long way to lowering costs and tariffs and improving service levels.

4.2 Basic insights

Before the discussion turns to the analysis of the causes behind the problems outlined above it is useful to outline some basic insights that will assist with identifying the problem causes.

4.2.1 The range of economic regulatory functions

Economic regulators provide a range of functions which can generally be categorised under the following headings: the regulation of market entry by issuing licences for the construction or operation of infrastructure facilities; the regulation of service quality and standards; and the regulation of tariffs and charges. The greatest impact on SOE performance is generally seen in the regulation of market entry and tariffs.

4.2.2 Economic regulation is part of a broader governance framework

Economic regulation is one part of the broader institutional framework that has a governing effect on SOE behaviour. Other relevant aspects of the institutional framework that governs SOE behaviour in practice typically include:

- Government's role as policy maker (including the entire legislative framework governing SOE conduct);
- Government's role as shareholder;
- informal influence and pressure by politicians and officials;
- influence from the providers of debt capital, including the role of rating agencies;
- to the extent that SOEs operate in markets with competitors: competitive pressure in their respective markets; and
- influence from other stakeholders and consumers.

An investigation of the impact of regulation on SOE performance will have to reflect on the influence of these other drivers of behaviour, which inevitably be intertwined with that of regulation.

4.2.3 Potential conflicts of interest in sector governance is resolved by separating key powers and functions

If the key governance functions of policy making, shareholding, the regulation of market entry, tariff setting, and project promotion were all housed in a single government department the minister would typically suffer from fundamental conflicts of interest which, as experience has shown, would fatally undermine performance in the sector. For instance, increasing tariffs to pay for new infrastructure might conflict with short-term political pressures and might be hard for ministers to implement, but could be critical to ensure long-term sustainable infrastructure provision. Or, if a policy department also had the role of promoting specific projects, its responsibility to make overall sector policies objectively could be compromised by its short-term objective of in delivering projects, or by influence from the most organised industry interest groups.

Rather than housing the SOE functions in a government department, the South African Parliament has often addressed the conflict of interests that this arrangement would entail by locating infrastructure delivery in separate, arm's length, SOEs, and by establishing independent economic regulators who function in terms of the legislative and policy frameworks

for the sector.²¹ The best example of this approach in South Africa is probably the electricity sector.²²

With this arrangement line ministers thus retain their policy prerogative for the sector, but do not pursue the desired policy outcomes by exercising direct control over the SOE or the regulator. Rather, the department and ministry focus more narrowly on the challenging task of developing a comprehensive, congruent and rational published policy framework for the sector, which is designed to coordinate the actions of the many players in the industry to produce outcomes that best meet the democratic aspirations of stakeholders. The line department also ensures that the necessary legislative instruments are in place to facilitate the implementation of the policy framework by the industry participants and the industry regulator.

In other words, this approach empowers SOEs and regulators in the context of specified and congruent policy and the associated legislative frameworks. This increases the probability that Government's stated long-term policy goals and objectives will be achieved, but it does require all role players to "play by the rules" of this, more sophisticated, governance system.

4.2.4 Regulating SOEs is a different challenge to regulating private sector companies.

The standard paradigm for economic regulation, which is also widely applied by South African regulators for SOEs is premised on the assumption that the regulated companies, and their managers, are primarily motivated by the objective of maximizing profits and shareholder (financial) value. This becomes the basis on which the regulator can create incentives for companies to improve efficiencies and service quality. However, boards and managers of SOEs are often motivated by a complex set of objectives, which are being traded off against the objective of maximizing profits. Under these circumstances approaches such as incentive based regulation, or the threat of regulatory penalties (for example disallowing a portion of project overrun costs from the regulatory asset base) are unlikely to have the desired effect. These factors have to be considered when the regulatory framework for SOEs is designed.

4.2.5 Normal financial profit is desirable for sustainable operations.

Recent reports in the press about SOE financial results, with headlines such as "Eskom rakes in R12,8bn profit on tariff hikes" (Sapa, 2011) appear to do little to clarify confusion around the concept of "profit" and its desirability for SOEs.

In order for SOEs to be financially viable and sustainably fund growth in the services offered, they need to generate economic returns. In other words they need to cover their costs, service their debt and generate a return on equity (financial profit) equal to the opportunity cost of the

²¹ There are, of course, other important reasons why it is desirable to locate commercial infrastructure services in an SOE rather than a government department. These mostly relate to the need to create an appropriate climate to professionalise the service and increase pressures to improve efficiency of delivery.

²² This approach is in accordance with wide spread international practice and is sometimes referred to as the "standard model" (Gillwald, 2007).

equity capital employed. In principle regulators attempt to set returns on equity equal to the risk adjusted opportunity cost of capital. In economic terms, the opportunity cost of equity capital is a fundamental part of the economic cost of providing an infrastructure service. The opportunity cost is the return that is foregone by not investing the capital elsewhere. If the return on equity is equal to its opportunity cost, *economic* profits will be zero (the company will nevertheless show financial profits on its income statement because the opportunity cost is not shown as a cost in the financial statements). Economic profits will be generated only when returns to equity exceed the risk adjusted opportunity cost of equity capital.

It is the generation of economic profits over the long term that is undesirable and is generally an indication of the exercise of undue market power. Normal financial profits resulting in an appropriate, risk-adjusted return to equity, is thus a desirable outcome and is not indicative of an abuse of monopoly powers.

4.3 The Causes

Given the six problem areas and the five basic insights identified above, the next step is to consider the causes of the problems more closely. As discussed above, regulation is one part of a broader, interrelated governance framework that impacts on SOE performance. When investigating the causes of the challenges experienced with SOE regulation, it is inevitable that this broader framework will have to be considered. The investigation points to the following causes for the problems identified above:

4.3.1 Ministers and senior government officials often undermine the separation of powers established for the effective functioning of policy formulation, SOE regulation and corporate governance.

Experience has shown that ministers or officials often exercise (or attempt to exercise) direct control over SOE operations and investments decisions, either through informal means, or by gaining the formal powers to do so. This directly undermines the arm's length separation of powers established between Government, the SOE and the regulator. By taking over aspects of the roles of regulation and project promotion, in addition to its role of policy making and share holding, Government's conflict of interest are increased and the ability of the regulator to impact on SOE performance is directly undermined. In the end this approach, more often than not, achieves the opposite of Government's stated policy goals.

Recent examples of this problem includes the proposed amendments to the Electricity Regulation Act that will completely remove the ability of the regulator to provide an independent review the appropriateness of power sector capital projects, or the recent legislative amendments proposed by the Department of Communications to transfer the spectrum allocation powers from ICASA to the Minister of Communications. In both these cases Ministers wish to remove the regulatory powers to regulate market access. These interventions will ultimately worsen performance in the power sector and further exacerbate tariff and security of supply problems.

When ministers or officials undermine the separation of powers by shifting their focus to effecting direct control over SOEs and limiting the power of regulators, they typically expend less effort on the challenging task of policy development, which ultimately is to the detriment of the sector.

Undue shareholder interference in the operational management of SOEs, undermines SOE Boards and reduces their accountability for achieving their objectives – and therefore also undermines their response to regulatory governance. Officials and politicians often do not fully appreciate that the separation of powers and roles, and independent regulation, is a valuable but fragile arrangement that contributes to better implementation of policy frameworks by reducing conflicts of interest and by increasing managerial and regulatory accountability.

4.3.2 The finalisation of policy and regulatory frameworks is often subject to inordinate delays

SOE costs are often increased by delays in clarifying policy and regulatory frameworks. Late or incomplete clarification of sector policy leads to rushed and inadequate project planning, design and project execution by SOEs, and ineffective regulatory processes; all of which leads to cost overruns and economic waste and resultant higher costs to consumers. Examples include the delays in obtaining Government approvals for the NMPP project and similar delays in Government approvals for proceeding with Medupi and Kusile power stations. In the case of the NMPP policy and legislative delays meant that the project construction had to begin before all the regulatory and environmental approvals had been obtained if supply problems were to be avoided, which ultimately lead to substantial project delays when problems were later encountered. In the case of Medupi thousands of design changes had to be implemented after the project had been commenced in haste before the detailed design stage had been completed leading to further delays of more than a year. All of these problems have lead to a drastic increase in project costs and could have mostly been avoided if the policy to enable Eskom and Transnet to construct these plants had been clarified in time.

4.3.3 Policy makers often misunderstand the role for, and strategies to achieve market based competition to deliver desired policy outcomes

Aspects of infrastructure sectors are subject to natural monopoly characteristics, or are prone to market concentration. In the case of natural monopoly sectors²³, such as electricity transmission and distribution networks, or petroleum pipelines, organizing competition within the sector will be difficult or impossible to achieve and is unlikely to improve social welfare (i.e. benefit society). It is possible to privatise the monopoly company that will deliver the service

²³ “Natural Monopoly” is a descriptive term meaning that the sector’s marginal costs tend to be lower than its average costs and that, as a result, an entity’s cost per unit of production (service) declines as it becomes bigger. In this case an entity that manages to get ahead of its competitors will benefit from positive feedback whereby its lower marginal cost will help it to get greater market share, which in turn will further reduce its marginal cost.

and subject it to economic regulation. However, this approach is generally not advisable, because of the large information asymmetry problem between the incumbent and the regulator – hence the unsuccessful track record experienced by ICASA over the past 14 years with regulating Telkom²⁴. In the case of natural monopoly networks it is often better to establish the company as an arm's length SOE, as is the case with Transnet Pipelines.

However, in sectors where competition is possible, such as power generation and telecommunications, international experience has shown conclusively that it is better to organize the sector to achieve effective market competition. Effective competition is often not a “natural” outcome in the infrastructure sector, largely because of the high barriers to entry and the opportunities for vertical integration into the natural monopoly parts of the value chain. Hence the need for well designed policy frameworks to establish competitive markets and the use of specialist sector economic regulators to ensure that the market design delivers effective competition.

Infrastructure policy formulation in South Africa often does not reflect these important insights. On the one hand, policy sometimes seeks to promote competition where it is not practical to achieve and even counterproductive to attempt to do so. On the other hand, policy often does not utilize important opportunities to achieve effective competition where it is possible and beneficial to do so. For instance, the Petroleum Pipelines Act (No 60 of 2003) implores NERSA to:

promote competition in the construction and operation of petroleum pipelines, loading facilities and storage facilities; (section 2(a)).

This provision caused considerable confusion for the energy regulator for some time. Attempting competition in the normal sense would not be in the public interest, because integrated pipeline networks are natural monopolies. This reality is at least partly behind the recent failure of the Petroline consortium who intended to construct a competing line from Maputo to interconnect with TPL's inland network. In the end the only meaningful interpretation of section 2(a) is that it means competition “for the market” not competition “in the market”. In other words, firms can compete to get the rights to construct a line over the transmission route, but once constructed the line will be operated as part of the integrated network (which is a natural monopoly)²⁵.

Misunderstanding about the use of market competition as a policy tool has also led to the very costly process of Telkom's managed liberalization, and ultimately led to the misguided and

²⁴ The point here is not that Telkom was a natural monopoly (it is not), but that ICASA ended up with a situation where it had to regulate a partly privatised (and thus aggressively profit seeking) company that had (protected) monopoly power in key market segments.

²⁵ Even in this case establishing an appropriate remuneration framework for the new, privatised, line will be no simple matter, because it delivers fuel to the same market as the Transnet lines, but potentially at a different tariff.

costly establishment of Infraco. Careful policy design and effective regulation could have achieved market-based investment to address the challenges in the telecoms sector.

Similar problems exist with the continued vertical integration of Eskom. No progress has been made in the last ten years with proposals to separate the Transmission grid and the system operator from Eskom, to establish the Independent System and Market Operator (ISMO) and to lay the basis for socially beneficial private sector entry and competition in the generation sector. Delays in reforming the current industry structure have undermined efforts to obtain efficient (and sufficient) private sector investment in the generation sector.

4.3.4 Fundamental policy contradictions are often left unresolved

The sector case material outlined above has highlighted a number of unresolved policy contradictions that create perverse incentives for SOEs and set regulators up for failure. For example, on the one hand, Transnet National Ports Authority is currently used to subsidise the large funding requirements of Freight Rail in the absence of an alternative funding mechanism to make up the shortfall that would otherwise arise. On the other hand, the Ports Regulator is expected to reduce NPA tariffs. These arrangements have left the Ports Regulator and the TNPA at loggerheads, with both wishing to fulfil their mandates, and has resulted in much wasted effort and conflict with not public benefit.

A further example is the fact that, based on current Government mandated investment plans, Eskom needs annual tariff increases of 25% until 2014 to generate sufficient cash resources to service its rapidly growing debt burden and fill its funding gap, while it is unclear and even doubtful whether such increases can be economically and politically tolerated.

Economic Regulators are in effect expected to resolve these policy contradictions. However, because resolving policy problems is beyond the powers and mandate of regulators they end up fudging the issue, are forced to depart from their official regulatory methodology and determine tariff increases on the basis of an *ad hoc* subjective balance between political and economic forces rather than a predictable methodology. Politicians, sensing that regulators now “impinge on the political terrain” soon argue that regulatory powers should be reduced (witness the recent examples in the electricity and telecommunications sectors). In this way policy failures undermine regulators by setting them up for failure. Often, problems that appear to be regulatory failure are in fact the symptoms of an underlying policy failure.

4.3.5 The mandates and objectives given to SOEs are often too broad

Governments face many and diverse political and policy pressures. In their attempts to address this complexity it is often tempting to expect SOEs, who typically control vast resources, to assist with achieving many of these objectives. Not only do SOEs have to deliver on their core infrastructure functions, but they now also have to assist with a myriad of economic policy and other social objectives. The wider the set of objectives for an SOE the more managerial time and resources are stretched, and the more the SOE will have to make trade-offs in the achievement of its objectives – which to some extent entails political judgements. With more policy trade-offs now being made inside SOEs, politicians and their officials will want to

intervene to exercise (legitimate) influence over the prioritisation of objectives and resource allocation. The problem with this situation is that the process requires government to breach the arm's-length relationship with SOEs in order to exercise this influence. This has the effect of turning SOEs into quasi government departments thereby undermining the original rationale for establishing the enterprises as SOEs in the first place.

SOE trade-offs of a too wide scope of objectives, and the greater political interference in the activities of the SOE that often occurs as a result of this, also makes it correspondingly harder for regulators to undertake comprehensively assessments of SOE performance – particularly with respect to their core sector-specific mandate²⁶. SOE managers will also be less inclined to respond to regulatory incentives for efficient infrastructure delivery, because they are likely to be more affected by their performance in the non-core areas that the regulator is likely to be less concerned about.

Part of the benefit of locating infrastructure functions in a SOE corporate structure, rather than in a Government department (assuming it cannot be usefully privatised) is that it provides focus, potentially increases incentives for efficient delivery, and increases the funding pool available to the public sector if the SOE is able to raise debt finance without recourse to government guarantees. A too diverse a set of objectives for SOEs thus undermines the arm's length commercial status of the entity, which in turn weakens the (potentially) constructive impact of regulatory oversight, and the overall benefits of utilising an SOE structure for infrastructure delivery.

4.3.6 Regulatory accountability is limited

Typically it is not possible to take poor regulatory decisions on appeal. Furthermore, despite the notable exception in the case of ACSA in recent years, SOEs are loath to take regulators on review to the High Courts for political, practical and legal reasons.

Not all regulators hold proper public hearings or conduct their meetings in public. And regulators often fail to give full and comprehensive written reasons for their decisions.

The absence of readily regulatory appeals mechanisms has at time contributed to regulatory mediocrity and drawn out regulatory uncertainty.

²⁶ This problem also arises from delays in finalising policy and regulatory frameworks (which are, for example, responsible for the delays and cost overruns with the NMPP project and Medupi power station) or from the failure to resolve fundamental policy contradictions (witness the continual dissatisfaction with the TNPA tariffs levels and structures, and the effective dependence of Transnet on NPA cash flows to assist with its funding obligations in Rail).

4.3.7 Regulatory independence and capacity is compromised by the nature of appointments

With the exception of ICASA all the regulators reviewed are appointed by the line Minister²⁷. Moreover, in the case of some regulators, such as NERSA and the ACSA Regulating Committee, the appointment process is not specified in the Act and the criteria for appointees are too general and vague. Too many regulator members in SA are simply not sufficiently qualified, experienced and independent to fulfil their roles, and appear to be appointed for their political and personal affiliations.

A quick glance at the Chairperson's report in the NERSA annual report shows that the chairperson expresses her:

...appreciation also to the Minister, for providing *leadership and guidance*, and to the Department of Energy and Senior Staff, for their support of the Energy Regulator (National Energy Regulator of South Africa, 2011) (emphasis added).

This general spirit of deference to the line minister does not augur well for independent professional regulation.

4.3.8 Regulators do not have proper control of the secretariat supporting them

In the case of NERSA the Minister also appoints the CEO of the secretariat, who also serves as a Member of the Regulator. This arrangement undermines the accountability of the secretariat to the Board and thus limits the ability of regulator Members to harness regulatory resources to support their deliberations, which in turn unnecessarily increases conflict within the organisation.

In the case of the ACSA Regulating Committee, regulators have to rely on support from personnel in the department itself and do not have their own personnel. This arrangement significantly reduces the capacity and independence of the regulator.

4.3.9 Regulators are often under resourced

The Ports Regulator expresses great concern about its chronic under resourcing in its annual reports. In a recent press release the Director General of Communications acknowledged that the ACSA Regulating Committee needs to be replaced by a full-time regulator (presumably with more resources) (Mahlalela, 2011). NERSA (being funded by a levy on electricity) and ICASA have more financial resources.

Regulators need to be able to attract and retain highly skilled (and sought after) economists and other professionals, in order to develop the capacity they require to meet their obligations.

²⁷ ICASA Councillors are appointed by the President with recommendations from the National Assembly.

4.3.10 Regulators generally fail to implement modern performance and talent management practices.

Over time South African regulators tend to provide sheltered employment for large numbers of people, but continue to be desperately short of skills. Regulators typically do not implement effective performance management systems and deal with underperforming staff, including managers and regulator members (Department of Public Enterprises, 2005). Regulators therefore generally do not present attractive working environments for top performers (in contrast with some jurisdictions abroad) and are consequently not very successful in attracting or retaining such people. Attracting and retaining skilled personnel does not just depend on appropriate remuneration, but on an functioning institutional environment with effective performance and talent management.

4.3.11 Regulatory methodologies are inconsistent and subject to frequent change

While some regulators have gone to considerable effort to develop and clarify their regulatory methodologies they face many challenges during this process.

Firstly, the issues involved are often exceedingly complex and, given the challenge they face with obtaining skilled personnel, and the inexperience of the regulator members themselves, they often have to go through a long learning curve before the regulatory methodology is sufficiently stable. For instance, NERSA's "Methodology For The Setting Of Tariffs In The Petroleum Pipelines Industry" has gone through at least 6 versions (National Energy Regulator of South Africa, 2011)²⁸.

Secondly, unresolved fundamental policy questions (discussed above) and, in some cases, ambiguity in the legislative frameworks about key questions – such as whether tariffs should be increased during the construction phase of capital projects, to moderate large price spikes and assist with the funding burden – have made it difficult for regulators to finalise tariff methodology frameworks.

These problems have also had the result that key aspects of regulatory methodologies, such as the approach to asset valuation, the treatment of capital works under construction, the calculation of the cost of capital, etc. differ across the different sectors reviewed, for no apparent reason²⁹. Diversity in approaches for different sectors would not necessarily be a problem if the different approaches developed in response to specific circumstances, but this does not appear to be the case.

²⁸ While the methodology document is marked as the "5th Edition" it is in fact the 6th published version.

²⁹ In the case of NERSA different approaches are employed in the different sectors it regulates.

4.3.12 South Africa suffers from a dearth of teaching and research capacity in the field of regulatory and infrastructure economics

South Africa needs to develop a core of regulatory professionals and academic researchers in order to develop a national discourse on regulatory and infrastructure economics, and to create a pool from which members of regulators, employees and regulatory consultants can be drawn.

South Africa has very little funding available for academic research and teaching programmes on regulatory economics.

The following table summarises the key aspects of SOE performance problems and the role of regulation therein.

4.4 Summary of SOE performance problems and the impact of regulation

Table 4: The key aspects of SOE performance problems and the role of regulation therein³⁰

SOE performance area	Performance problem	Possible examples	Regulatory role
Affordable and cost reflective tariffs	<ul style="list-style-type: none"> - Tariffs that are "too high" but paradoxically not cost reflective - Tariffs reflect market power 	<ul style="list-style-type: none"> - Eskom - Transnet Pipelines - ACSA - Telkom (market power) 	<ul style="list-style-type: none"> - Regulators do not have adequate oversight of cost drivers (see below) - Popular and political pressure constrain regulators from setting cost reflective tariffs
Price path	<ul style="list-style-type: none"> - Unpredictable price paths 	<ul style="list-style-type: none"> - Eskom - Transnet Pipelines - ACSA 	<ul style="list-style-type: none"> - Incomplete regulatory and policy frameworks - Inexperienced or under resourced regulators - Inappropriate regulatory methodologies (WUC not in RAB)
Capital project selection	<ul style="list-style-type: none"> - Inefficient project selection (timing, sizing and complexity, technology (incl. fuel), location - Unfunded mandates and informal (or semi-formal) political pressure 	<ul style="list-style-type: none"> - NMPP - KSIA? - Kusile? 	<ul style="list-style-type: none"> - Either no powers to regulate market entry; or - Are effectively bypassed in decisions between Govt. and SOE - Cannot avoid greater costs impacting on tariffs
Capital project execution	<ul style="list-style-type: none"> - Large cost overruns 	<ul style="list-style-type: none"> - NMPP - KSIA - Medupi - Kusile 	<ul style="list-style-type: none"> - Inherent difficulty with locating sufficient investment risk on SOEs and their managers to improve risk management incentives, in monopoly industries - Inexperienced or under resourced regulators have not developed sufficient mechanisms to address the causes
Financing capacity and costs	<ul style="list-style-type: none"> - Loss of debt capacity; - Reduction in credit ratings; - Increasing cost of debt finance 	Large risk for: <ul style="list-style-type: none"> - ACSA - Eskom - Transnet 	<ul style="list-style-type: none"> - The regulatory challenges listed above result in higher costs and less revenues for SOEs - and thus less cash flows that are available to service debt
Service standards and quality	<ul style="list-style-type: none"> - Interrupted service; - Delays in service provision; - Quality problems 	<ul style="list-style-type: none"> - Municipal electricity distributors - Eskom 	<ul style="list-style-type: none"> - Limited regulatory capacity and resources - Limited regulatory leverage to require sufficient capital and maintenance investment

³⁰ There are clearly other factors in the institutional and governance framework of SOEs that also contribute to these performance problems.

5 Recommendations

The approach adopted to developing the recommendations for this report was based on pragmatic, and not ideological considerations. Ultimately the concern of a developmental state is about the ends (outcomes), rather than the means. Policies and strategies are probably best designed through a pragmatic and eclectic approach by drawing on international experience and insights about approaches that are most likely to achieve the desired outcomes in the South African context.

The recommendations are as follows:

5.1 What Government should do

5.1.1 Separate primary responsibility for the key functions in the infrastructure sectors

The proposals outlined below are based on the principle of achieving an effective separation of primary responsibility for the functions of:

- 1) policy making;
- 2) economic regulation;
- 3) shareholder representation; and
- 4) project promotion, development and operations.

It is critical that each of these functions are performed well in order for the sector governance system to provide infrastructure services that meet the needs of society and the economy as cost effectively as possible. Separating primary responsibility and accountability for these roles achieves two important benefits:

- 1) It places greater pressure on the institution responsible for each role to ensure that the job gets done. It will be harder to be primarily occupied with activities more closely related to the other functions and still claim that your primary responsibility has been fulfilled. For instance, if a department is responsible for policy formulation it cannot keep itself busy with regulatory-type activities and claim to have done its job while the sector policy framework is in disarray. Or, if a department is responsible for ensuring effective shareholder oversight, it cannot be spending half of its time making sector policy pronouncements and still claim to have done its job properly, etc.
- 2) It also reduces the problems of conflict of interest that arise if some of these roles are performed by one institution. Separating regulation from primary policy formulation for a sector increases the confidence that policies will actually be implemented in future when day-to-day political pressures or lobbying by special interests could limit the ability of politicians to implement their declared policies. Similarly, if a line department is responsible for achieving social objectives for the sector, it will be easier for the share holding department to focus on shareholder oversight and the triple bottom line performance of the entity.

Government is best placed to provide the leadership required to establish the separation of these roles, and to implement the necessary measures to ensure its implementation.

5.1.2 Establish a comprehensive national infrastructure decision framework with checks and balances

Given the problems with SOE capital investment performance outlined above, it is necessary to establish an explicit framework to improve the selection of projects and allocation of limited capital funding capacity of the public sector in order to maximise the economic growth and development benefits that can be achieved in the infrastructure sectors³¹. It is recommended that a national infrastructure decision framework be established that requires:

- 1) that line departments focus on their “core business” of producing up to date, congruent policies and the legal framework to enable its implementation;
- 2) that all SOE capital projects are independently demonstrated to be financially viable; or
- 3) that, if projects are not viable, but are desired for broader economic or social purposes (i.e. are economically viable³²) in terms of a published policy framework:
 - a) that an explicit statement of the expected funding gap has to be prepared, and approved by the Minister of Finance; and
 - b) that explicit funding mechanisms, approved by the Minister of Finance, have to be established to make up the funding shortfall;
- 4) that all sector regulators are explicitly empowered and required to regulate market access. Regulators should review and approve new projects on the basis of criteria derived from a published infrastructure policy framework for each sector and on the basis of the financial viability criteria set out above. Projects have to be financially viable on their own strength, or by taking into account any additional funding mechanism (concessionary or grant funding) approved by the Minister of Finance.
- 5) In considering the application regulators should, in cases where the sector is dominated by an incumbent with market power, also consider the impact on the long-term price path of the proposed project, and the possible existence of more appropriate alternative strategies to meet the service demand³³.
- 6) that makes it illegal for a government minister or official to place formal or informal pressure on an infrastructure company, including an SOE, to undertake a capital project if it is not part of a published policy framework and cannot be independently demonstrated to

³¹ This assertion is supported by the pronouncements of the Minister of Finance on the infrastructure programme in his 2012 Budget Speech (<http://www.treasury.gov.za/documents/national%20budget/2012/speech/speech.pdf>) and the associated Budget Review report (<http://www.treasury.gov.za/documents/national%20budget/2012/review/FullReview.pdf>).

³² See <http://www.treasury.gov.za/publications/guidelines/2012%20MTEF%20Guidelines.pdf>

³³ If there is adequate competition with investors bearing the risk of their investment decisions, tariffs and project specification should not be regulated.

be financially viable, or that appropriate funding mechanisms, approved by the Minister of Finance, have been made available to meet any viability gap. and,
 7) that makes it illegal for SOEs to incur (or commit to incurring) more than 5% expenditure on a capital project cost in the absence of regulatory approvals for the project, including of its financial viability.

This framework has been designed to be complimentary and give effect to the general direction on infrastructure policy given by the Minister of Finance in his 2012 Budget Speech. The proposed infrastructure decision framework is summarised in the diagram below.

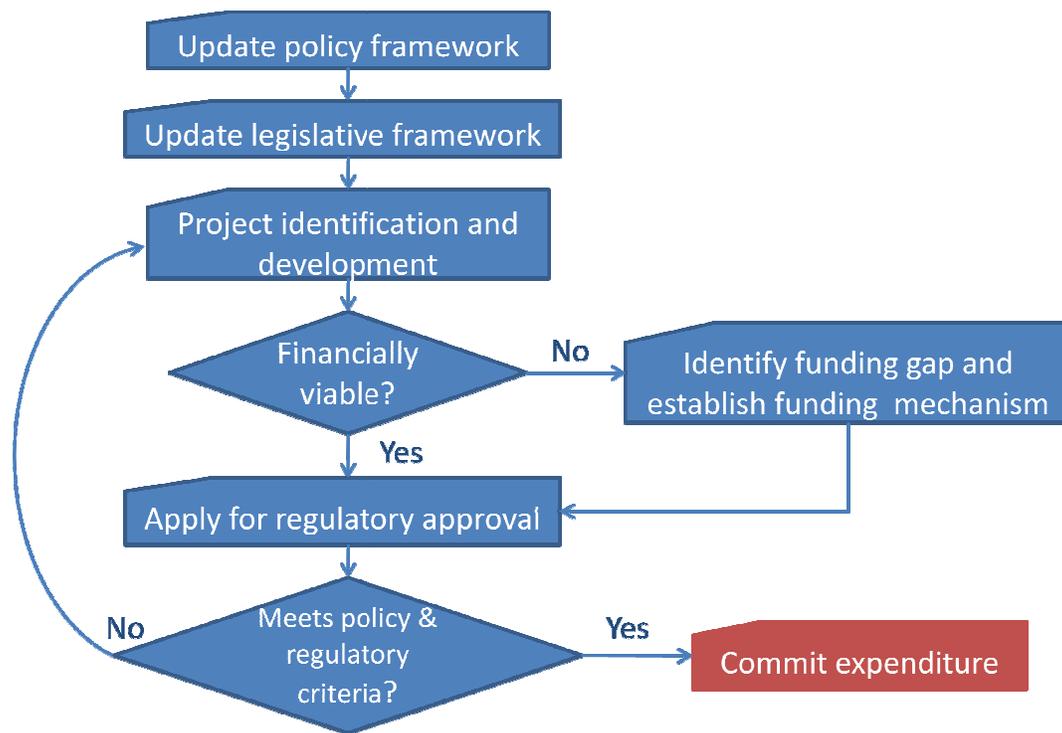


Figure 2: The proposed National Infrastructure Decision Framework summarised

5.1.3 Improve regulatory accountability

Substantial adjustments are required to improve and standardise regulatory accountability:

- 1) All regulators should conduct their meetings in public, hold public hearings, and give proper notice of such events.
- 2) All regulators should provide detailed and comprehensive written decisions setting out the full facts, evidence and reasons for each decision.
- 3) National Treasury or the Presidency should commission and publish expert reviews of regulatory performance on a three to five year basis³⁴.

³⁴ Detailed methodologies for undertaking such reviews are discussed in the literature reviewed above.

- 4) A multi-sectoral regulatory appeals tribunal should be established that covers Energy (electricity, gas pipelines, and petroleum storage and pipelines) and Transport (Ports, Airports, and a possible future Single Transport Economic Regulator), and Telecommunications.

Its aim will be to improve the quality of regulatory decisions and to develop a common approach and jurisprudence by enabling the appeal of regulatory decisions.

The legislative amendments required to implement this proposal (see below) should specify clearly and explicitly which decisions are appealable and who may appeal (any party materially affected, but always including government)³⁵. In principle tariff decisions should be appealable, but, in the context of the proposal to develop a comprehensive infrastructure decision framework, license decisions should not be (they will of course be reviewable by the Courts).

In principle appeals should be “narrow”, in other words they should be limited to the information that was placed in front of the regulator at the time of the original decision. The Tribunal should be empowered to allow new evidence only for compelling reasons, such as when economic circumstances have changed, for instance if inflation or future demand forecasts have to be substantially adjusted.

The Tribunal should be empowered to:

- a) set a decision aside; and
- b) give specific guidelines to the Regulator or, if it considers it to be in the public interest, give binding instruction on specific aspects of the decision (e.g. the method for determining the regulatory asset base, or the method of determining the cost of capital, etc.); and to
- c) refer the decision back to the Regulator for finalisation in a short period of time; or
- d) replace the regulatory decision.

In the normal course of events, the Tribunal should not award costs. This should only be done if the Tribunal finds an appeal to be vexatious.

Tribunal members should be recognised experts in regulatory and infrastructure economics and should have appropriate post-graduate qualifications and at least 10 years relevant experience.

³⁵ Valuable proposals for establishing such a Tribunal for the energy sector (the Energy Appeal Board) are contained in the National Energy Regulator Amendment Bill Published for comment on 8 December 2011. It is recommended that the Energy Appeal Board proposals be revised to establish it as a multi-sector appeals tribunal that covers at least the regulators in the energy, transport, and communications sectors.

5.1.4 Improve regulatory independence

In the context of the need to improve the separation of powers, an improved infrastructure decision framework, and effective regulatory accountability, it is also important to ensure effective regulatory independence:

Given the tensions that arise between regulators and the line departments in the normal course of events (and given the unclear basis for the appointments of many part-timers) more effective regulatory independence would be achieved if Members or Commissioners were appointed by another neutral minister. Options include:

- The State President (as in the case of ICASA)
- A minister in the office of the State President
- The Minister of Trade and Industry
- The Minister of Finance

All regulators also need adequate sources for funding, that is not controlled by their line departments. As is the case for NERSA, regulatory funding could be generated from licence fees approved by the Minister of Finance.

5.1.5 Appoint specialists as regulators

More emphasis is required on moving away from “political” appointments to specialist professional appointments. A key factor contributing to regulatory independence is the calibre and affiliations of regulator members. Regulator members (or commissioners) that have a firm grasp of the complex financial and technical issues that they have to consider, and who themselves have built their careers on the basis of their professional competence in the area, will be more able and confident to take, possibly unpopular, regulatory decisions that are in the long-term public interest. In contrast, members who are less sure about the specialist issues they have to consider, and who’s appointment is more likely the result off their personal or political affiliations and leanings, will be much less likely to make difficult choices, and will be more inclined to stay within the realm of what is considered to be acceptable within the politics of the day³⁶.

Stricter criteria should therefore be established to ensure that appointees to economic regulators have the proven economic, financial and other related skills, and that formal or informal political and personal affiliations are not considered (even tacitly). The qualifications and experience required should be more narrowly specified to require regulatory economics, infrastructure economics and finance qualifications *and* experience, to ensure that better

³⁶ As argued above this is not to say that political decision making is not important, but merely that it should be separated from the regulatory process. Politics and political accountability belongs in the legitimate democratic processes of government where it should result in appropriate legislation, and approved and published government policy, which provides the framework within which regulators will perform their duties and against which they should be held accountable.

qualified commissioners are appointed. Professionals with general qualifications in law, business or engineering without substantial exposure to infrastructure development and operation are unlikely to make good commissioners in economic regulators.

Regulator members should be appointed by means of a publicly advertised and transparent process on the basis of clear criteria drafted to select the levels of expertise required.

5.1.6 Standardise regulatory methodologies

In order to reduce the complexity faced by sector regulators, reduce long learning curves, improve the quality of regulatory decisions, and reduce regulatory uncertainty, the Minister of Finance should specify by regulation binding cross sectoral tariff setting and capital project evaluation methodology principles (see the discussion on the legal framework below).

The tariff methodology principles could relate to (for instance) the valuation of the regulatory asset base, the cost of capital, the taxation allowance (in regulated income), and principles to be applied to achieve efficiency improvements. The project evaluation principles should be applied by SOEs and Regulators when conducting discounted cash flow analysis to assess capital project viability for the purposes of regulating market access (licensing).

5.1.7 Establish a single national legal framework for the economic regulation of infrastructure industries

The proposals set out above will mostly have to be implemented by passing new legislation. Furthermore, a number of regulatory reform initiatives currently under way should not proceed independently but should be coordinated to form part, and adhere to the principles of this national framework. This includes the initiative at the Department of Energy to amend the National Energy Regulator Act (Act 40 of 2004) and the Electricity Regulatory Act (Act 4 of 2006), the initiative at the Department of Transport to replace the ACSA regulator and the Ports Regulator and to establish a Single Transport Economic Regulator, and the proposals by the Department of Communications to remove the powers to allocate frequency from ICASA.

It is recommended that the Presidency request the Minister of Finance to prepare an Infrastructure Economic Regulation bill that will accomplish the changes proposed in this report. The Bill will replace the relevant sections in the legislation that governs economic regulation in the Transport (Airports and Ports), Energy (Electricity, Gas, and Petroleum Pipelines and storage), and Telecommunication sectors, and should thus be applicable across the key SOE infrastructure sectors. It should implement the proposals by (refer to the sections above for the details):

- 1) establishing the principle of separation of powers and functions;
- 2) establishing the legal instruments required to implement the comprehensive national infrastructure decision making framework;
- 3) establishing the multi-sector appeals tribunal, and implement other requirements to increase regulatory accountability;
- 4) changing the regulator appointments procedures; and

- 5) empowering the Minister of Finance to make binding regulators to specify the cross sectoral methodology principles for tariff setting and project evaluation.

It might be that some of the detailed proposals relating to the governance of capital project decisions and the prohibition on unfunded mandates could be better implemented by amending the Public Finance Management Act (Act 1 of 1999).

5.1.8 Support applied research and teaching regulatory economists

The Presidency should investigate methods to establish funding for economic regulation applied research and teaching at at least two South African universities, and support an annual South African conference on Economic Regulation.

5.2 What Regulators should do

5.2.1 Implement the requirements of regulatory accountability

Regulators do not need to wait for the revisions to the legal framework to take effect before they take steps to improve the transparency of their operations, improve the quality and accessibility of their websites, and facilitate more *effective* public participation in their decision processes.

5.2.2 Implement modern performance and talent management practices

Regulators need to obtain advice on the importance and nature of performance and talent management practices and on appropriate methods of implementation.

5.2.3 Work with regulators in other sectors and Government to standardise the main elements of tariff setting methodology

While legislative differences between sectors would have to be revised, in the short-term regulators can ensure improved interaction and coordination with each other on tariff methodologies and other practices to support the process of regulatory rationalisation and standardisation.

5.2.4 Promote research into and the teaching of regulatory economics at universities

Regulators can take the lead in coordinating efforts to promote research and teaching of regulatory economics at universities. NERSA has recently taken the initiative to organise first South African Economic Regulators Conference to be held in Pretoria on the 21 & 22 August 2012. Such an annual conference can become an important opportunity for regulatory practitioners to interact and share learning.

5.3 What SOEs should do

5.3.1 Adopt risk averse practices with respect to capital project planning, selection, and procurement

Ultimately capital project selection drives costs and tariffs. While a detailed discussion of this topic is beyond the scope of this paper (but, see for instance Steyn (2006)), the importance of

getting infrastructure right cannot be over emphasised. SOEs must do more to improve their project selection, planning, procurement and execution practices.

5.3.2 Practice regulatory and public accountability – including full disclosure of, and early regulatory application for approval of planned capital projects

SOEs should continue to work towards increasing the transparency and public accountability of their infrastructure development and operation practices. Part of this is to engage pro-actively and fully in the regulatory process.

5.3.3 Adhere to the requirements of economic and financial viability

SOE executives ultimately have an important fiduciary duty to ensure that that the projects they undertake are optimally in the public interest, economically viable, and that their enterprises remain financially viable. During this time of infrastructure expansion more needs to be done to ensure better project selection and specification.

5.3.4 Advocate for a balanced scope of responsibilities, to ensure adequate focus to deliver on their core mandate

SOEs should encourage Government to provide them with sufficient focus in their mandate to enable them to achieve their objectives efficiently. This means that an appropriate balance has to be struck between delivering infrastructural services on a commercial basis and the other social and developmental objectives that are given to SOEs.

6 Conclusions

The research conducted for this report has revealed a number of significant challenges relating to the regulation and performance of the infrastructure SOEs. The findings highlighted the complexity of implementing appropriate governance for SOEs and their sectors in order to achieve the desired policy outcomes. It is hard to avoid the conclusion that service and infrastructure delivery and pricing is unlikely to improve if the regulatory and related governance problems identified are not effectively addressed.

A sound institutional basis for this already exists. Infrastructure SOEs are corporatised and commercialised with economic regulators overseeing market entry (at least in principle in most cases) and tariff setting. However, if informal practice or formal changes to this regime undermine the separation of roles and powers on which this model is premised, it is bound to undermine the effectiveness and efficiency of service delivery with real consequences for the economy. South Africa is currently pursuing a policy of infrastructure led growth. This presents a once in a generation opportunity, but could easily be squandered if the governance framework is undermined and inappropriate capital project decisions are made as a result. The risks of getting infrastructure wrong are all too apparent from our history. The best chance of maximising the economic and developmental benefits from our limited capacity for infrastructure spend will be to rigorously implement the regulatory and related governance arrangements as outlined above.

7 Interviewees

<i>Name</i>	<i>Organisation</i>	<i>Position</i>	<i>Sector</i>
Hlahla, Monhla	ACSA	Former CEO	Transport
Leslie Rencontre	Cape Town Electricity Department	City Electrical Engineer	Electricity
O'Flaherty, Paul	Eskom	CFO	Electricity
Adam, Mohamed	Eskom	Executive Manager Legal and Regulatory affairs	Electricity
Eberhard, Anton	MIR-GSB-UCT	Director	Electricity
Crompton, Rod	NERSA	Member	Pipelines
Bukula, Them bani	NERSA	Member	Electricity
Kahn, Riad	Ports Regulator	CEO	Ports
Gillwald, Alison	Researchictafrica.net	Director	Communications
Wells, Chris	Transnet	Former CEO	Transport
Fusi, Fusi	Transnet	Senior Manager Regulation	Transport
Penfold, Glen	Webber Wentzel	Partner	Legal
Pickering, Mark	Meridian Economics	Partner	All

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9 Internet resources

Org	Sector	Date Accessed	Comment	URL
ACSA	Airports	Nov-11	IATA views on ACSA regulation	http://www.iata.org/pressroom/speeches/Pages/2011-10-14-01.aspx
Ports Regulator	Ports	Nov-11	"Ports Regulator cannot perform due to lack of funds CEO"	http://www.businessday.co.za/articles/Content.aspx?id=154449
Transnet	Ports	Nov-11	"Ports are Transnet's cash cow"	http://www.businessday.co.za/articles/Content.aspx?id=156011
	Communications	Nov-11	Allison Gilwald: "The state has a role in governing markets"	http://www.youtube.com/watch?v=nU8fzKTOI_c
Telkom	Communications	Nov-11	National Consumer Commission forces unbundling of voice and ADSL	http://mybroadband.co.za/news/adsl/33630-naked-adsl-battle-on-the-cards.html
Telkom	Communications	Nov-11	Local loop unbundling	http://www.balancingact-africa.com/news/en/issue-no-576/internet/south-africa-telkoms/en
Telkom	Communications	Nov-11	Telkom complains about regulatory burden, wants end to retail price regulation	http://www.techcentral.co.za/telkom-wants-end-to-retail-price-controls/23759/
Telkom	Communications	Nov-11	Telkom management team	https://secure1.telkom.co.za/ir/management/executive-management-team.html
Telkom	Communications	Nov-11	Andrew Barendse, Telkom Group Executive Regulatory Affairs	http://is.jrc.ec.europa.eu/pages/ISG/PREDICT/documents/AndrewBarendseCV.pdf
Nat Treasury		Nov-11	State eyes public entities' surplus cash	http://www.businessday.co.za/articles/Content.aspx?id=156968
ICASA	Communications	Nov-11	SAPO 2010 Annual report	http://www.sapo.co.za/Documents/annualreport10/SAPO%20AR%202010.pdf

PICC	All	Nov-11	Establishment and thinking behind Presidential Infrastructure Coordinating Commission	http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=21469&tid=42374
PICC	All	Nov-11	Reviews of tariffs mandated.	http://mg.co.za/article/2011-11-04-banking-on-infrastructure/
EIUG	Electricity	Nov-11	Shaun Nel, programme director at the Energy Intensive Users Group.	http://www.businesslive.co.za/southafrica/2011/11/05/no-end-in-sight-to-electricity-price-hikes
Transnet	Communications	Nov-11	WACS, international broadband cable	http://www.itnewsafrika.com/2011/04/wacs-has-landed/
	Communications	Nov-11	WACS broadband cable system	http://en.wikipedia.org/wiki/WACS_(cable_system)
	Communications	Nov-11	ACE broadband cable system	http://en.wikipedia.org/wiki/ACE_(cable_system)
Infraco	Communications	Nov-11	Latest on Infraco problems	http://www.itweb.co.za/index.php?option=com_content&view=article&id=47407:broadband-infraco-restructures
ACSA	Airports	Nov-11	Airlines view on ACSA regulatory process, excess investments, cost overruns, and tariffs	http://www.airnews.co.za/flarepath/flarepath_september2011.html
DOT	Airports	Nov-11	Single Transport Economic Regulator	http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=22460&tid=46385
DOT	Airports	Nov-11	"Road Map" planning regulations for ACSA and its regulator	http://www.transport.gov.za/communication_centre_sub.aspx?upd=1&comID=591&ssID=77
ACSA	Airports	Nov-11	Recent AVCOM comments on ACSA tariffs	http://www.avcom.co.za/phpBB3/viewtopic.php?f=1&t=78154
ACSA	Airports	Nov-11	ACSA views on tariff increases	http://www.acsa.co.za/home.asp?pid=8532
ACSA	Airports	Nov-11	ACSA investments, debt, tariffs and succession	http://www.fm.co.za/Article.aspx?id=153434
DPE	All	Nov-11	Gigaba rejects Manuel's plan for parastatal bosses	http://www.businessday.co.za/articles/Content.aspx?id=159441
India	All	Nov-11	New report on the plans to harmonise the approach to sector regulators in India	http://timesofindia.indiatimes.com/business/india-business/Regulatory-tabs-to-start-with-infrastructure-sector/articleshow/9616230.cms

Infraco	Communications	Nov-11	New Board appointed at Infraco	http://mybroadband.co.za/news/business/36336-broadband-infraco-board-shakeup.html
Infraco	Communications	Nov-11	No quick fix for Broadband Infraco: CEO	http://mybroadband.co.za/news/business/37857-no-quick-fix-for-broadband-infraco-ceo.html
Transnet	All	Dec-11	Moody's downgrades Transnet's rating	http://www.iol.co.za/business/companies/moody-s-downgrades-transnet-s-rating-1.1177764
Commentators	All	Dec-11	Eberhard & Steyn: Comment on the Governance of SOEs in SA	http://www.businessday.co.za/articles/Content.aspx?id=107596
Eskom	Electricity	Dec-11	Eskom key facts	http://www.eskom.co.za/c/article/584/key-facts/
Eskom	Electricity	Dec-11	Big users hail rethink on power pricing	http://www.businessday.co.za/articles/Content.aspx?id=160796
Eskom	Electricity	Dec-11	Hope for tariff relief	http://www.fm.co.za/Article.aspx?id=157128
Transnet	Ports	Dec-11	Transnet develops new port pricing plan	http://www.iol.co.za/business/business-news/transnet-develops-new-port-pricing-plan-1.1154308
ACSA	Airports	Dec-11	ACSA to oppose expropriation notice	http://www.airports.co.za/home.asp?PID=94&ToolID=2&ItemID=3341
ACSA	Airports	Dec-11	Airport quarrel heats up	http://www.iol.co.za/news/south-africa/airport-quarrel-heats-up-1.209488?ot=inmsa.ArticlePrintPageLayout.ot
ACSA	Airports	Dec-11	Early finish for La Mercy airport	http://www.iol.co.za/news/south-africa/airport-quarrel-heats-up-1.209488?ot=inmsa.ArticlePrintPageLayout.ot
ACSA	Airports	Dec-11	Statement by Transport Director-General Mr George Mahlalela at the media briefing on the future economic regulation framework for the aviation sector.	http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=19807&tid=36794
ACSA	Airports	Dec-11	Durban International / KSI passenger statistics	http://www.acsa.co.za/home.asp?pid=141
ACSA	Airports	Dec-11	New airport to create job bonanza - includes cost figure of R2.5bn	http://www.iol.co.za/news/south-africa/new-airport-to-create-job-bonanza-1.289143?ot=inmsa.ArticlePrintPageLayout.ot

ACSA	Airports	Dec-11	New R6,7bn King Shaka airport gets set for takeoff	http://www.engineeringnews.co.za/article/new-r67bn-king-shaka-airport-gets-set-for-takeoff-2010-03-19
ACSA	Airports	Dec-11	Update on ACSA's tariffs application for the 2010/11 to 2014/15 period	http://www.acsa.co.za/home.asp?PID=94&ToolID=2&ItemID=6825
ACSA	Airports	Dec-11	Deputy Minister Cronin on Airports Company South Africa (ACSA) and the regulating committee. Also mentions regulatory independence (also from Govt) and the responsibility of Govt to make policy.	http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=10349&tid=10366
ICASA	Communications	Dec-11	More criticism of telecoms law amendments - Govt wants to take spectrum allocation powers away from ICASA	http://mg.co.za/article/2011-11-15-government-should-be-helping-icasa-perform-its-tasks
Infraco	Communications	Dec-11	Infraco promises to ramp up spending	http://www.hellkom.co.za/newsviewer/local/8363/Infraco%20promises%20to%20ramp%20up%20spending
ICASA	Communications	Dec-11	Minister tells of plan to improve Icasa's finances	http://www.businessday.co.za/articles/Content.aspx?id=161115
ICASA	Communications	Dec-11	Gov't under fire over EC Act amendments	http://www.techcentral.co.za/govt-under-fire-over-ec-act-amendments/27359/