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Principles of Conducting Prudency Reviews in Regulatory Decisions: A South African Case

Samuel Gotora and Motshegetsi Sebalo
National Energy Regulator of South Africa
Samuel.gotora@nersa.org.za and Motshegetsi.sebalo@nersa.org.za

The authors for this paper work for the National Energy Regulator of South Africa. Samuel Gotora is a Senior Analyst within the Piped Gas regulation and Motshegetsi Sebalo is a financial and market analyst in the Petroleum regulation division.

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1. Introduction

The National Energy Regulator of South Africa ("NERSA" or "Energy Regulator") has recently been applying the prudency tests on regulated entities applications and has declined some costs that were deemed unnecessary for the provision of the regulated service. The immediate occasion for the most recent applications of the prudence test is in the electricity industry where the regulator has reduced the percentage increases requested by the utility amongst other decisions. Despite these decisions, some stakeholders have on countless occasions argued that NERSA is not adequately assessing the prudency of the costs in regulated entities applications and have even reviewed some decisions of the regulator at the high court.

Public platforms have led the outcry for more scrutiny of regulated entities conduct and have showcased instances where there have been cost overruns in major energy projects, prolonged construction delays and the manner in which the procurement in the public utilities is compromised by "imprudent" and corrupt officials. The purpose of this article is to discuss the application framework of a prudence review for a range of issues that are considered by the Energy Regulator in the current regulatory framework.

It is worth pointing out that the Energy Regulator usually uses various regulatory tools in assessing applications, such as audited regulatory financial reports, accounting separation or ring-fencing of regulated activities, the used and useful concept, standard costing, limited incentives and the prudence and efficient costs tests. Prudence reviews and the used and useful concept are on some occasions discussed together as they are used to assess assets that are admitted into the revenue requirement calculation.

In setting the context for this discussion, an introspection into the past decisions taken by the Energy Regulator seems to indicate the policy and strategic focus of the South African authorities. Past decisions of the Energy Regulator that involved the addition of critical and much needed capacity additions seemed to sail through without much scrutiny for prudency. For instance in the gas industry, the incumbent licensee was granted a 10 year period of grace from regulation and its costs where not assessed for prudency and efficiency in the period 2004 to 2014. Similarly, Eskom was granted

increases in the periods[1] 2008/9, 2009/10 and 2010/11 of 27.5%, 31.4% and 24.8% which were all above the inflation rate that averaged 7% in the periods under discussion. This stance is not peculiar to South Africa but other regulatory bodies around the world that seem to allow capacity addition without much scrutiny (Burns, Kelly, Poling, Whinihan, 1985).

However, the public spotlight highlighting inefficiencies in the regulated entities actions coupled with excess capacity in some of the regulated entities has the Energy Regulator focusing particular attention when conducting prudency checks. Furthermore, some aspects of the recent decisions of the Energy Regulator relating to tests to assess the prudency of costs have been criticised by stakeholders as lacking transparency, predictability and increases the risk of the licensees. This paper therefore articulates the principles that are used by the regulator in assessing the prudency of costs that are submitted in pricing and tariff applications.

2. Objective

This discourse focuses on the principles used to conduct prudency assessments which is a tool that is relied on when the Energy Regulator makes some of its decisions. The Energy Regulator makes decisions on the applications made by licensees and the aim is to make decisions that are in the public interest including the provision of a reliable service at reasonable prices. One way it conducts its assessments is to check whether the decisions and proposals of the management of the licensee is prudent.

The prudency assessment principles cover both the assessment of ex-ante and ex-post prudency for capital and operation expenditures. Critically for ex-post assessments is who bears the consequences of an error, be it a less than forecast demand projection or higher than budgeted construction costs. Should the costs be passed through to the customer or to the shareholders of the utility? The regulator usually holds management of utilities responsible for decisions that they could control as it conducts prudency tests.

[1] Source of these figures is the Eskom 2010/11 tariffs and charges document appendix F that is found at http://www.eskom.co.za/CustomerCare/TariffsAndCharges/Documents/Tariff_Guide_2010_web_version_3.pdf

In striving to ensure predictability, transparency and consistency in its decisions, the Energy Regulator is publishing principles articulated in this paper. The Energy Regulator would like to ensure that regulated entities initiate and implement economic activities in an efficient, reasonable and prudent manner including provision of a reliable service, raising of capital for projects and complying with regulatory requirements. This paper may therefore be useful to the regulated entities as it provides insights in the prudency assessment tests that are conducted by the regulator and they may act from an informed perspective.

Firstly the paper will look at the framework in which prudency tests are conducted followed by the various definitions of prudency and how this is used in the international regulatory spheres. The paper will draw lessons from case law particularly concerning aspects related to prudency assessments. Finally the paper will detail the principles that NERSA uses in conducting prudency assessments.

3. Regulatory framework

The Energy Regulator is a creature of statute and its mandate is clearly defined in the various enabling legislations. Thus the current regulatory framework defines the primary activities that the regulator is mandated to execute. Broadly these can be categorised into two; the first being the licensing of infrastructure and the second being the setting of prices and tariffs.

In licensing infrastructure that is prescribed by the enabling legislation, the regulator is mandated to issue licences for four activities namely; construction, conversion, operation and trading. The process entails the regulator receiving applications from investors that would like to participate in the regulated industry. This is a crucial stage in the regulatory process as it determines whether or not an asset should be authorised to be constructed and be utilised to provide a regulated service. It is also the stage whereby prudency tests commence to ascertain whether the investor has conducted adequate research and has ascertained the existence of demand or a gap in the market for the regulated service, the technology that would like to be introduced and the tariffs and prices that plan to be charged. The regulator prescribes the information

that should be submitted. For instance, the requirements for a [2]construction licence of a distribution facility in the Gas Industry will always include information on the following:

- ***Demand study*** - Details of any existing and/or potential customers for the proposed facility, including: the names and physical addresses of existing customers, the names and physical addresses of potential customers, for each customer, the average or anticipated consumption of the commodity; categorization of each customer, for example as a small, medium or large user; the price to be charged to each customer; as well as any transmission and distribution tariffs and any other charges; and copies of any supply agreements with (potential) suppliers and customers.

  The investor must demonstrate the ability to supply present and future potential customers at competitive prices and conditions. This must include a 10 year development plan to install a network allowing access to commodity by potential customers and showing annual commitments for the installation of pipelines.

- ***Financial Viability*** – The investor must submit proof of financial viability of the proposed facility, including: commercial structure; projected financial statements and/or discounted cash flow (DCF) model (providing assumptions used in calculations and sourcing of figures); the status and/or proof of equity financing agreements and finance including terms and conditions; and other costs incidental to the project.

The above information will be subjected to prudency tests to avoid the [3]Averch-Johnson effects of constructing regulated assets that are not necessary for the provision of the regulated service.

The regulator is also mandated to set fair and reasonable prices and tariffs and currently uses the Rate of Return (RoR) principles in its determinations. Assessing RoR involves evaluating the effects of price levels on earnings so that investors have

[2] Source is the Piped Gas Rules available at www.nersa.org.za/legislation/piped gas rules
[3] Averch and Johnson effects are that firms using the rate of return regulation tend to over invest in assets (Gold – Plate)

a fair opportunity to earn a fair return on their investments. The regulator determines an overall cost level of providing a service plus a fair rate of return (cost of capital) in determining an allowable revenue for the regulated entity.

The allowable revenue is determined as Regulated Asset Base (RAB) multiplied by the Cost of Capital plus Operating Costs, that is (RAB x WACC) + Operating Costs. Prudency tests are conducted for the RAB, the cost of capital and the operating costs to ensure that the ultimate allowable revenue is fair and reasonable.

4. Definitions of prudency and case law

The prudence test in regulation is borrowed from the legal fraternity where it is used as a standard for conduct owed to others. The concept of a prudent investment is a regulatory oversight standard that attempts to serve as a legal basis for judging whether utilities meet their public interest obligations.

Prudency tests in regulation is an old concept that has been applied since 1914 by the United States of America (USA) Supreme Court. Justice Brandeis in the case *South Western Bell Telephone Co v Public Service Commission of Missouri* proposed that the prudence test is an easier and more sensible way of determining the fair return allowed to regulated entities. In the case Brandeis introduced the concept of prudent rate base valuation and proposed that the historical cost as opposed to the fair value of assets is more appropriate. This notion was reiterated in the *FPC v Hope Natural Gas Co* case.

The online law dictionary has defined ***Prudent Utility Practice*** as the practices, methods, techniques, standards and acts that at the time of making the decision at a particular time, result in the exercise of reasonable judgement in light of the facts known at the time a decision was made, would have reasonably been expected to accomplish the desired results. [Emphasis added]

Below is a brief summary on how some regulators interpret the prudency test.

Table 1: Prudency Interpretation

Regulatory Authority	How prudency is interpreted by other regulatory authorities
Australian Energy Regulator (AER)	Prudent Expenditure is that which reflects the best course of action, considering available alternatives.
Queensland Competition Authority (QCA)	Capital Expenditure is prudent if it is required by legal obligation, new growth, renewal of existing infrastructure, or achieves an increase in the reliability or the quality of supply. Operational Expenditure is efficient if it is undertaken in a least-cost manner over the life of the relevant assets and is consistent with relevant benchmarks.
Independent Pricing and Regulatory Tribunal (IPART) of New South Wales	For prudence, investment decisions must be consistent with good industry practices.
Ontario Energy Board (OEB)	To be prudent, a decision must have been reasonable under the circumstances that were known or ought to have been known to the utility, at the time the decision was made.
Novas Scotia Utility and Review Board (NSURB)	Fundamental principles: Consider whether reasonableness and due care was applied in the decision making process.
Alberta Energy and Utilities Board (AEUB)	A utility will be found prudent if it exercises good judgement and makes decisions, which are reasonable at the time they are made.

In the South African case, concepts of prudency, efficiency and reasonableness, are closely related and complementary. Costs cannot be prudent if they were not efficiently and reasonably incurred. Prudently incurred costs should embody the characteristics of being necessary; efficient; reasonable; and which allow licensees to provide an adequate level of service to its customers.

What can be generally concluded is that the concept of a prudent decision has been vaguely pronounced on by the courts, leaving broad discretion for the application of the prudent test standard by regulators. In the same light, the South Africa Energy Regulator is publishing these prudency principles but will still use its discretion and a combination of regulatory tools to make its decisions.

5. Principles of prudency

The Energy Regulator developed the following principles of prudency as minimum requirements that ought to be met when the Energy Regulator makes its decisions:

a. **Legality:** The operations and activities of the licensee should be legal and in line with the legislative framework. (This entails compliance with all relevant laws of the Republic and, in particular, the Electricity Regulations Act, Petroleum Pipelines Act, Piped-Gas Act, Regulations, Rules and guidelines of the regulated industries).

b. **Due Process:** The decision-making (including procurement decisions) regarding licensed activities must follow due process. There must be established principles and processes laid down to ensure assessment of such decisions. These processes and principles should not be violated and should be attested through audit reports, minutes of board meetings and procurement policies and any other documentation considered relevant or requested by the Energy Regulator.

c. **Relevance:** The cost incurred should be relevant to the licensed activity and should ensure efficient operation and maintenance of the licensed activity. Similarly, decisions related to the licensed activity should be aimed at achieving efficient operation and maintenance of the licensed activity.

d. **Foresight:** In general, decisions on the licensed activity should be based on the long-term view rather than a short-term view. Decisions should be

made with the aim to avoid foreseeable future problems and with the purpose of reasonably ensuring the long-term sustainability of the licensee and the industry.

e. **Value:** The licensee should endeavour to provide safe, reliable and of good quality services to its customers at a fair cost.

f. **Planning:** The licensee is expected to engage in proper planning for its licensed activities. It is also expected to execute those plans properly and efficiently. Implicit in this is the assumption that it will plan to avoid emergencies wherever possible and have plans in place to deal with foreseeable emergencies.

g. **Tariff stability and predictability:** A licensee is expected to ensure that tariffs follow a smooth tariff trajectory to ensure stability and predictability, to the extent practical, to avoid volatility in tariffs.

When coming up with the allowable revenue of a regulated entity, the determination itself is not a cost reimbursement scheme and should not insulate the regulated entity from the risk of doing business (Malko.R, Baldwin.V.M, 2011). As there will be questions of who bears the risk of errors in decisions, economic regulation will focus on encouraging efficient behaviour and efficient outcomes that are consistent with a prudent manager.

It has often been argued by the regulated entities that there should be a presumption of prudency for already incurred costs but case law in other jurisdictions has shown this is not the case. In the cases of *ATCO Gas and Pipelines vs Alberta Utilities Commission (ATCO),* and *Ontario Energy Board vs Ontario Power Generation Inc*, the Supreme Court freed up regulators to review costs, regardless of whether they were incurred already or forecasted, utilising whichever statutorily compliant method they have.

The Energy Regulator is cognisant of the maturity of the developed markets that have more experience using the prudency test. As such the Energy Regulator has only developed principles to assess prudency and has also provided a guideline table of some of the ways it may conduct the prudency tests.

The guideline tables illustrate how prudency principles may be interpreted as shown below.

Table 2: Guideline - assessing prudency for capital expenditure

No.	Proposed guideline	Explanation	Relevant information
1.	Assess the necessity of the facility in question.	The facility must promote efficient, effective, sustainable and orderly development. It must be determined whether the asset (including the specifications and capacity) is necessary and whether the investment is justified by forecasted supply/demand available to use the capacity. In some circumstances, applicants are required to demonstrate that the proposed facility is in support of existing published government policies. Capital investments may be executed as a response to published Government Policies, for example, the Integrated Resource Plan. It must be demonstrated that the infrastructure under consideration is needed to provide a service or to act as a backup for existing infrastructure.	i. Relevant published Government Policy ii. Economic, market and financial, supply/demand forecasts and other relevant information
2.	Assess the reasonableness of costs.	Licensees will be required to demonstrate that the cost of the asset is reasonable and justifiable.	The following information will be of interest to the Regulator, among others: i. benchmarking of costs with prevailing industry practices;

No.	Proposed guideline	Explanation	Relevant information
			ii. project costs breakdown; iii. justifiable competing technology; iv. skills of decision-makers and project managers etc; v. estimated total projected cost compared to actual audited project costs; vi. Construction delays may be of interest; vii. comparative exercise of different technologies to inform decision; and viii. a comparative study on outsourcing versus in-house execution of the project.
3.	The investment decision should be in the best interest of both the licensee and customer.	Regulators are required to ensure that the best interests of the licensee and the customer are considered.	i. The licensee should demonstrate how the utility and its customers are going to benefit from the new capacity, e.g. increase in competition and decrease in service prices/tariffs. ii. The utility should demonstrate that the proposed capacity would result in improved service quality and reliability.
4.	The decision to incur the costs must be consistent	The licensee should demonstrate to the Regulator, where applicable that, the cost of the defined scope and standard of work is	i. Information on industry good practices will be used to assess this requirement.

No.	Proposed guideline	Explanation	Relevant information
	with good industry practice.	consistent with conditions prevailing in the market.	ii. Benchmarking of project costs with similar projects in the market will be performed.
5.	Due care, good judgement and compliance with sound business practices must be adhered to.	The licensee should be able to provide evidence to the Regulator to show that sound business practices were followed if requested to do so. The licensee should demonstrate that it acted in a reasonable manner and used a reasonable standard of care in its decision-making process.	i. Licensee should prove to the Regulator that decision-makers have the required skills, capabilities and delegated authority to make the decision. ii. Provide details (CVs) of decision-makers if required. iii. The licensee should demonstrate to the Regulator that legal prescripts (e.g. Public Finance Management Act No.1 of 1999 for public entities) and internal approval policies, processes and procedures were followed when making the decision. Such information may include: a. delegation of authority matrix; b. risk management framework; c. Boards' minutes; and d. Supply Chain Management processes.

No.	Proposed guideline	Explanation	Relevant information
6.	Asset should be commissioned to be included in the revenue requirement .i.e. used and useful	The licensee should be able to provide justification to the Regulator to show that its assets (which are under its control) are used.	Site visits and compliance audits to verify that assets are used.

Table 3: Guideline - assessing operation expenditure's prudency

No	Proposed guidelines	Explanation	Relevant information
1.	Assess whether the decision to incur the cost is consistent with good industry practice	The cost of the defined scope and standard of work is consistent with conditions prevailing in the market for the efficient operation and maintenance of the asset.	i. Expenditure should be incurred to achieve the objectives of the licenced activities. ii. The licensee must demonstrate that least-cost alternatives have been considered. iii. Assessment of contracts with service providers. iv. Operation costs breakdown. v. Comparison with previous years' expenditures (trend analysis of costs).
2.	Assess the reasonableness of the costs	The prudency review is based on the conditions prevailing when the decisions were made.	i. Comparison of previous year's expenditure figures with current figures. ii. The licensee must demonstrate that the approach taken to avert or mitigate potential risk was the best option. iii. The licensee must demonstrate that its operational model and maintenance regime is efficient in both its intent and execution. iv. Audit reports will be required to verify costs where warranted. v. The costs incurred should be related to the provision of the service

No	Proposed guidelines	Explanation	Relevant information
3.	Assess whether due care, good judgement and compliance with sound business practices was adhered to before incurring the cost	It is expected that decision-makers have the required skills, capabilities and delegated authority to make the decision. The regulated entity's decisions must be reasonable in the context of information which was known (or should have been known) at the time the decision was made.	i. Check the relevancy of costs to the service being provided. ii. Check if internal procedures were followed when approving the costs. iii. Check if decision-makers had the required skills, capabilities and delegated authority to make the decision. iv. Costs should those that are related to providing the service v. Information on future demand/supply used to arrive at the decision to incur the cost will be of interest to the Regulator.

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