

Discussion Document

Prudency Assessment Criteria to assist licensees in ensuring the prudency of costs incurred

INTRODUCTION

1. The National Energy Regulator of South Africa (NERSA) is a regulatory authority established as a juristic person in terms of Section 3 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). The Energy Regulator's mandate is to regulate the electricity, piped-gas and petroleum pipelines industries in terms of the Electricity Regulation Act, 2006 (Act No. 4 of 2006), Gas Act, 2001 (Act No. 48 of 2001) and Petroleum Pipelines Act, 2003 (Act No. 60 of 2003).
2. In accordance with the Acts and supporting methodologies, rules and guidelines of each industry, NERSA must ensure that all costs allowed in the determination of the Allowable Revenue (AR) or Revenue Requirement (RR) for the purposes of setting or approving tariffs are prudently, efficiently and reasonably incurred by the licensees.

BACKGROUND

3. Based on the requirements of the three acts mentioned above, NERSA uses various methodologies to determine allowed revenues for the three industries it regulates.
4. For municipalities, a different system was chosen because municipalities do not have accurate asset registers makes the effective use of the Rate of Return (ROR) methodology difficult. For municipalities, NERSA uses benchmarks based on reasonable margins.

5. Regulators are constantly faced with decisions on whether to allow costs into the allowed revenue. It is therefore prudent for regulators to lay down principles in advance to guide their decision-making to ensure fairness and consistency.
6. Prudency is generally assessed post-fact and licensees have to make decisions in real time before the fact. It is fair and just that they should know in advance the basis on which the assessment is conducted. There is therefore, a need for Regulators to develop Prudency Assessment Criteria as a guideline for assessing the prudency of costs incurred by licensees. The criteria will act as a guide to licensees (before any costs are incurred) by making licensees aware of the areas or information that the regulator will focus on when assessing prudency matters. Although NERSA will use the assessment criteria to assess the prudency of licensees' costs, NERSA will always exercise its discretion when dealing with prudency matters.
7. NERSA's assessment of prudency is influenced by other considerations (such as efficiency and reasonableness) set out in the respective Acts. Therefore, this discussion document aims to provide clarity to licensees on the meaning of 'prudency,' with reference to NERSA's legislations and regulatory frameworks, and how NERSA will deal with prudency matters going forward.

LEGAL BASIS

8. The requirements of the acts, regulations and methodologies governing the three regulated industries concerning the prudency, efficiency and reasonableness of costs incurred that are allowed in the determination of AR are detailed below.

Electricity

9. The Electricity Regulation Act, 2006 requires in terms of section 4(a)(ii), section 14(1)(d) and section 15(1)(a) that the Energy Regulator enable an efficient licensee to recover the full cost of the licensed activity, including a reasonable margin or return, through tariffs.

10. The Multi-Year Price Determination (MYPD) Methodology in section 13.12 ('the Methodology'), developed for the regulation of Eskom, requires that revenue form the basis on which the Energy Regulator evaluates the price adjustment applications received.
11. The MYPD is a cost-of-service-based methodology with incentives for cost savings, as well as efficient and prudent procurement and overall operations by the licensee.
12. The Methodology requires that the Energy Regulator review the efficiency of all contracts, such as those between Eskom and the Independent Power Producers (IPPs), before such contracts are concluded to ensure prudence. It also requires that there be fair risk allocation between the IPP and the buyer. The administrative costs of the Power Purchase Agreements (PPAs) must be reviewed by the Energy Regulator to determine the efficiency and prudence with which the costs will be allowed as a pass-through cost.
13. Although prudence is not a term used in the ERA, it is international best practice for regulators to assess prudence in expenditure. Efficient licensees will make prudent decisions and prudent decisions will make a licensee efficient, which is why the assessment of prudence is included in the MYPD Methodology. The Methodology requires that the licensee exercise prudence in all its regulated activities. This is in accordance with the requirements of Policy Position 1 of the Electricity Pricing Policy.
14. The MYPD Methodology requires that the Energy Regulator make an assessment of generation plant maintenance quality against the maintenance plan submitted. The assessment seeks to ascertain the efficiency and prudence of maintenance planning processes, as well as the implementation of maintenance plans.
15. The Electricity Regulation Act, 2006 and the MYPD Methodology raise two important concepts, namely the efficiency and prudence of licensees. These two concepts are discussed in detail later in this report.

Petroleum Pipelines

16. For tariff setting and approval purposes, Section 28(3) (a)-(c) of the Petroleum Pipelines Act and section 4(2) (a)-(c) of the Regulations made in terms of the Petroleum Pipelines Act state that tariffs should allow the licensee to recover a return on investment, recover reasonable operating and maintenance expenses, rehabilitate the land used in connection with the licensed activity and make profit commensurable with risk.
17. Furthermore, section 4(7) (a)-(c) of the Regulations states that the Regulatory Asset Base (RAB) must be calculated as the total investment in the RAB, for assets in operation at the time of the promulgation of the Regulations. For assets for which historical cost records do not exist, there must be an estimated value that the Authority accepts as closely approximating the historical cost; and the RAB must include only those assets that have been prudently acquired.

Piped-Gas

18. In the Piped Gas Act there, is no mention of prudence, reasonableness or efficiency of costs, however the Piped-Gas Regulations developed in terms of the Gas Act 2001, in section 4 state that maximum prices approved by the Energy Regulator must enable a licensee to recover all efficient and prudently incurred investment and operational costs.
19. In terms of the Guidelines for Monitoring and Approving Piped-Gas Transmission and Storage Tariffs, the Energy Regulator requires that efficient operating and maintenance expenses be included in the calculation of allowable revenue. To assess the efficiency of costs, the Energy Regulator monitors operating and maintenance expenses using principles such as whether the expenses were incurred prudently or not.

20. Section 4(4) of the Piped Gas Regulations prescribes that for the purpose of price regulation, maximum prices approved by the Energy Regulator must enable the licensee to recover all efficient and prudently incurred investment and operational costs and make a profit commensurate with its risk.
21. The Piped-Gas Regulations also mentions the concept of efficient and prudently incurred investment and operational costs. It expects that both capital investment and operational costs/expenses should be efficient and prudent.
22. Before any cost items are allowed into the allowable revenue, such costs are expected to have been incurred with due prudence and efficiency in mind and should be reasonable. This applies to all the regulated activities of the licensee whether it is operations, construction, procurement or even financing.
23. The criteria developed should then demonstrate on what basis the licensee will be expected to show reasonableness, efficiency and/or prudence when making an application to the Energy Regulator.
24. From the above discussion it is clear that all the regulatory frameworks for the industries regulated by the Energy Regulator require that costs incurred during operation and capital costs allowed into the AR be prudently, reasonably and/or efficiently incurred. This, therefore, makes it imperative to develop standard prudence criteria to guide licensees on how the regulator will deal with prudence matters and what type of information will be required in that process. This will enable the Energy Regulator to deal with prudence matters consistently, transparently and without any difficulty.

Question 1: Are there other issues that the Energy Regulator should consider when dealing with prudence matters?

Question 2: What other statutes and regulatory framework should the Energy Regulator consider when dealing with prudency matters?

PRUDENCE, EFFICIENCY AND REASONABLE COSTS

25. The three concepts of prudence, efficiency and reasonable costs that emerged from the Acts and the tariff methodologies are discussed in detail in the following paragraphs.

Prudency of Costs

26. Available literature suggests that quite often, prudence of costs refers to the assessment of investment purchased or contracted in the past. JT Brown Consulting (2009) suggests that regulators should allow a regulated entity to recover only prudently incurred costs. This is in line with the requirements of the legislation governing the operations of NERSA.

27. Imprudent costs are defined as costs that are found to be dishonestly incurred, or which are negligent or wasteful. Whether or not a cost is prudently incurred depends on how the decision to incur the cost was made, not the outcome of the decision.

28. Therefore, it becomes difficult to judge whether an expenditure item is prudent and/or efficient if there is insufficient specific information to substantiate that expenditure (Independent Pricing and Regulatory Tribunal of (IPART) of New South Wales, 2016). From this, we can deduce that the onus is on the licensee to prove the prudency and efficiency thereof.

29. From the above definition of prudency, it appears that prudency is associated with exercising of care in the management of resources, having the skill and good judgement in the use or management of those resources.

Efficient Costs

30. Efficient means performing or functioning in the best possible manner with the least waste of resources, as well as having and using the requisite knowledge, skills, and competence. Costs incurred by licensees should be reasonable or comparable with alternatives or similar cost items. It should be undertaken in a least-cost manner over the life of the relevant assets, taking into account prudent capital expenditure (Capex) and operational expenditure (Opex) trade-offs and be consistent with relevant benchmarks (Queensland Competition Authority, 2011). Efficient costs can also be those that will make the licensee more efficient in the long-term and improve the customers' experience of the licensees' services.

Reasonable Costs

31. According to Missouri Consultants for Education, LLC (2017) and the Utah-State University (2010), a cost is reasonable if its nature and amount does not exceed that which would be incurred by a reasonable person under the prevailing circumstances. In determining reasonableness of a specific cost, consideration should be given to the following sub-factors:
- a) whether the cost is generally recognised as ordinary and necessary for the operations of the licensed activity or the proper and efficient performance of the licensed activity;
 - b) the restraints or requirements imposed by sound business practice, and terms of the organisation and regulatory requirements;
 - c) market prices for comparable goods or services;
 - d) whether costs conform to:
 - i. sound business practices in line with legislation, and
 - ii. 'at arm's length' bargaining between a willing buyer and willing seller (this concept of an 'at arm's length' transaction allows the market to ensure that both parties in the deal are acting in their own self-interest and are not subject to any pressure or duress from the other party);
 - e) whether the licensee acted prudently when incurring these costs;

- f) whether the licensee deviated significantly from its established practices and policies regarding the incurrence of the cost; and
 - g) whether the costs were incurred using the organisation's established practices.
32. For example, expenditure is judged prudent if all the assumptions underlying the investment decision were based on sound judgement from information derived from a robust asset management framework and the expenditure was reasonably likely to produce an outcome that is judged efficient (Independent Pricing and Regulatory Tribunal of New South Wales, 2016).
33. In summary, it is clear from the above discussion on prudence, efficiency and reasonableness, that these concepts are closely related. Costs cannot be prudent if they were not efficiently and reasonably incurred.

QUESTION 3: Are there any other concepts that NERSA needs to consider over and above prudence, efficiency and reasonableness?

TREATMENT OF PRUDENT/IMPRUDENT COSTS BY OTHER REGULATORS

34. According to JT Browne Consulting (2009), the definition of prudence is operational – it gives direction for establishing whether or not a decision meets the prudence standards. It is clear that even if there exist clear prudence standards, without accurate information, it will be difficult to assess whether an expenditure item was acquired prudently or not. It is worth noting that in making decisions, a licensee must demonstrate that it has taken into account the best interests of its customers and its shareholders. Therefore, prudence has to be judged based on balancing the interests of the two parties.
35. When a licensee applies to a regulator for a tariff, it should be allowed to recover only prudently incurred costs. The Public Utility Commission (2011) supports this

view by suggesting that all prudent aspects of the investment will be added to the rate base in order to earn a 'fair' return on its investment, while costs deemed imprudent will be disallowed and borne by shareholders.

36. Similarly, the Australian Energy Regulator (AER) (2010) reflects that the notion of efficient costs complements the costs that a prudent operator would require to achieve the expenditure objectives. An assessment of prudence deals with how a decision was made, not the outcome of the decision. According to the AER, a prudence assessment usually happens months, if not years, after the decision has been made. Therefore, availability of data/information used to make a decision is paramount for both the regulator and the regulated entity.
37. The approach to prudence evaluation is for the regulated entity to prove to the Regulator that it was prudent in acquiring certain expenditure items, not the reverse. As JT Brower Consulting (2009) asserts, formal policies and procedures would help to ensure that 'a regulated entity follows a reasonable process in making its material decisions and does not miss a step that might raise questions as to the prudence of its decision'. Should the regulated entity make a conscious decision not to follow its existing policies when procuring certain capital or operation expenditure items, it is expected of the regulated entity to provide the regulator with a good reason for not following its policies or procedures. Such a decision and the reason for the decision should be properly documented.

QUESTION 4: Other than providing information and reasons for a decision to NERSA, is there any other way in which the licensee should prove to the regulator that it has been prudent in incurring costs?

QUESTION 5: What type of information must be provided by licensees to assist the Energy Regulator in assessing the prudence of costs incurred?

FACTORS CONSIDERED BY REGULATORS WHEN DEALING WITH A PRUDENCE MATTER

38. The Ontario Energy Board (2011), Public Utility Commission (2011) and JT Browne Consulting (2009) list the following as some of the best practices that regulators need to consider when dealing with prudence matters:

- a) Hindsight should not have an impact: an investment decision's prudence should be based on the information that was available when the decision was taken, not at the time of the review (IPART, 2016).
- b) Expenditures are deemed to be prudent in the absence of reasonable grounds to suggest the contrary (Ontario Energy Board, 2011).
- c) In making decisions, a utility must take into account the best interests of its customers, while being entitled to a fair return. However, the principle applies only to reasonable, prudently incurred costs (JT Browne Consulting, 2009).

39. According to Independent Pricing and Regulatory Tribunal of New South Wales (IPART) (2005), forecasting of costs can never be perfect, and should not be expected to always be within the pre-determined range. However, a prudent forecast of efficient costs might reasonably be expected to be consistently within a band of $\pm 10\%$ of the actual outcome, and preferably closer than that in the first year of the regulatory period. According to the Regulatory Tribunal, a significant forecasting error, with outcomes either consistently above or below annual forecast amounts, suggests that the utility does not fully understand its cost drivers in their business (or their customers). Such forecasts would, by definition, not be based on efficient costs and the outcomes may not be prudent.

QUESTION 6: Should a tolerance band on forecasted project costs be incorporated into the proposed assessment criteria and what should be the allowed band or variance between forecasted and actual costs be? Provide

40. In summary, this survey of regulatory practices with respect to prudence raises important issues:

- a) Regulators should only allow prudently incurred costs into the AR.
- b) Expenditures are deemed to be prudent in the absence of reasonable grounds to suggest the contrary.
- c) Whether or not a cost is prudently incurred depends on how the decision to incur the cost was made, not the outcome of the decision.
- d) In making decisions, a utility must take into account the best interests of its customers, while being entitled to a fair return.
- e) Even if there exist clear prudence standards, without accurate information, it will be difficult to assess whether an expenditure item was acquired prudently or not.
- f) It is difficult for regulated entities to accurately forecast their costs, therefore a tolerable range/variance should be allowed.
- g) The test for reasonableness is important in the assessment of prudently incurred costs.
- h) Benchmarking analysis is important in setting up a tolerance band for costs incurred by utilities.

QUESTION 7: The onus is on the regulated entity (licensee) to prove that it was prudent in making decisions to incur costs. How can NERSA develop its prudence assessment criteria in such a way that this is achieved, and what should the test for reasonableness that the Energy Regulator should apply be?

- 41. Table 1 provides examples of how different Regulatory Authorities interpret prudence.
- 42. From the table below it can be observed that different regulatory authorities interpret prudence differently, depending on the characteristics and structure of the sector regulated.

Table 1: Prudence interpretation according to different Regulatory Authorities

No	Regulatory Authority	Prudence interpretation
1	Australian Energy Regulator (AER)	<ul style="list-style-type: none"> Prudent expenditure is that which reflects the best course of action, considering available alternatives.
2	Queensland Competition Authority	<p>CAPEX is prudent if:</p> <ul style="list-style-type: none"> the capital investment is required as a result of a legal obligation, new growth, renewal of existing infrastructure, or achieves an increase in the reliability or the quality of supply that is explicitly endorsed or desired by customers or external agencies. <p>OPEX is efficient if:</p> <ul style="list-style-type: none"> it is undertaken in a least-cost manner over the life of the relevant assets and is consistent with relevant benchmarks.
3	Independent Pricing and Regulatory Tribunal (IPART)	<ul style="list-style-type: none"> For prudence, investment decisions must be consistent with good industry practices.
4	Ontario Energy Board (OEB)	<ul style="list-style-type: none"> To be prudent, a decision must have been reasonable under the circumstances that were known or ought to have been known by the licensee at the time the decision was made.
5	Novas Scotia Utility and Review Board (NSURB)	Fundamental principles which are common are:

No	Regulatory Authority	Prudence interpretation
		<ul style="list-style-type: none"> whether the licensee's decisions were reasonable in the context of information which was known, or should have been known at the time; and whether the licensee acted in a reasonable manner and use a reasonable standard of care in its decision-making process.
6	Alberta Energy and Utilities Board (AEUB)	<p>A licensee will be found prudent if it exercises</p> <ul style="list-style-type: none"> Good judgement and makes decisions that are reasonable at the time they are made, based on information the owner of the licensee knew or ought to have known at the time the decision was made.

QUESTION 8: Are there other factors that NERSA should consider when considering prudence matters?

PRACTICES OF THE ENERGY REGULATOR

43. Table 2 shows the current procedures the Energy Regulator has in place concerning assessment of prudence of costs AR in each regulated division.

Table 2: Procedures in place concerning the assessment of prudence

Industry	Electricity	Petroleum	Piped-Gas
Capital Expenditure (Capex)	<ul style="list-style-type: none"> The Electricity Regulation Act does not make provision for the licensing of construction 	<ul style="list-style-type: none"> The Petroleum Pipelines division currently does not have criteria according to which 	The revised Tariff Guidelines contain the following principles that will be used to

Industry	Electricity	Petroleum	Piped-Gas
	<p>separately and these activities are dealt with along with other Capex. It also refers to an efficient licensee and the requirement for prudence arises from the Electricity Pricing Policy and the MYPD Methodology.</p> <ul style="list-style-type: none"> Assessments of prudence is guided by published benchmarks, trend analysis, research and judgement of the reasonableness of the expenditure. <p>The assessment of prudence is limited to where it is referenced in the Multi Year Price Determination (MYPD) Methodology.</p>	<p>prudence of the acquisition of assets by licensees can be assessed.</p> <ul style="list-style-type: none"> Prudence has previously been assessed on a case-by-case basis. The Energy Regulator has in the Reasons for Decision indicated that the costs will be subject to prudence assessment at a later stage for licensees whose costs, especially asset base, have not been assessed for prudence. 	<p>assess whether an investment in Capex is prudent:</p> <ul style="list-style-type: none"> The investment is prudent if it was prudent at the time the decision was made. This requires accurately assessing what information management had available and used to make its decision. The investment is prudent if management acted to minimise cost by fully considering the changing conditions that would affect the investment. This requires assessing what management should have known and should have considered in making this decision. Assessing whether the plant is actually being used to provide a service and that it is contributing to the provision of the service.

Industry	Electricity	Petroleum	Piped-Gas
			<p>How piped-gas has practically implemented the above prudency assessment:</p> <p>The piped-gas division ensures that an investment is prudent at the licensing stage of the investment. The licensee is requested to demonstrate that the investment is being prudently undertaken based on the abovementioned criteria.</p>
<p>Operational Expenditure (Opex)</p>	<ul style="list-style-type: none"> • There is no legal requirement for prudency; the ERA refers to efficiency and the requirement for prudency arises from the Electricity Pricing Policy and the MYPD Methodology. • Assessments are guided by benchmarks, trend analysis and judgement of the 	<ul style="list-style-type: none"> • There is no standard criteria for assessing the prudency of Opex. Opex is currently assessed based on cost escalations. Escalations must be deemed reasonable by the Energy Regulator. This is predominantly done through the assessment of the reasonableness of the cost, the necessity of the cost, how the 	<p>In assessing whether an expense was prudently and efficiently incurred, the following factors are considered:</p> <ul style="list-style-type: none"> • determination if the expenses were 'at arm's length' bargaining. • expenses must be legitimate for providing regulated services; • the costs should be incurred through efficient company processes;

Industry	Electricity	Petroleum	Piped-Gas
	<p>reasonableness of the expenditure.</p> <p>The assessment of prudence is limited to where it is referenced in the MYPD Methodology.</p>	<p>cost compare with the preceding period's actual cost as well as costs incurred by other licensees for the same activity (benchmarking), among others.</p>	<ul style="list-style-type: none"> • expenses should represent the normal operations of the licensee and may be adjusted for pending increases or decreases; and • expenses that will not be allowed by other commissions or authorities. <p>The Energy Regulator may undertake prudence checks on the efficiency of the expenses, including using the previous year's actual values as a benchmark.</p>

44. Table 2 above shows that, although prudency assessment is currently being undertaken within NERSA, the assessment is not standardised across the regulated industries.
45. Based on there being no standard practice within the regulated industries of the Energy Regulator, there is a need for the development of standardised prudency assessment criteria.
46. It is clear from the above discussion that there are certain expectations or practices associated with efficiencies of licensees' that consumers of regulated services expect to be observed or practised by licensees. These practices can be summarised into principles called 'prudency principles'. Such principles should guide any licensee in terms of being efficient in its operation and in its procurement processes.

PRINCIPLES OF PRUDENCY

47. The following principles, referred to as 'prudency principles,' were developed based on the principles of good regulation and other regulatory practices as discussed above. These principles are also developed to support the concepts of prudency, efficiency and reasonableness as required in the three regulated industries' Acts and Prescripts.

Legality: The operations and activities of the licensee should be legal and in line with the legislative framework. (Electricity Act, Petroleum Pipelines Act, Piped-Gas Act, Regulations, Rules and guidelines of the regulated industries).

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.

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.

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 future problems and with the purpose of ensuring the long-term sustainability of the licensee and the industry.

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

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.

QUESTION 9: What other prudency principles should be considered and why?

PROPOSED ASSESSMENT CRITERIA

48. The assessment criteria proposed in this report covers both the assessment of prudency for capital expenditure and for operation expenditure.
49. It must be noted that the Energy Regulator will assess prudency when there are reasonable grounds that suggest that the licensee has been imprudent such as, but not limited to, construction delays and cost overruns.
50. The proposed criteria are not exhaustive and the Energy Regulator will always exercise discretion when dealing with prudency matters.

51. In using the prudence assessment criteria, it should be emphasised that hindsight provides perfect insight that was not available to those making the decisions, therefore it cannot be used to assess the decisions made. Assessment of decisions made must be done by first establishing what was known at the time and what influences were at play on the decision-makers, for example were emergency conditions applicable following a major storm.

Capital Expenditure Assessment Criteria

52. When licensees acquire or construct regulated assets, the criteria listed in Table 3 will be used to assess the prudence of costs incurred.

53. The list is not exhaustive, but provides a guide on what the Energy Regulator will assess.

Table 3: Criteria for assessing prudence for capital expenditure incurred

No.	Proposed criteria	Explanation	Relevant information
1.	Assess the necessity of the facility in question.	<p>i. 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.</p> <p>ii. Applicants are required to demonstrate that the proposed facility is in support of existing government policies. Capital investments are executed at the request of the mandated 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.</p>	<p>i. Relevant Government Policy</p> <p>ii. Economic, market and financial, supply/demand forecasts and other relevant information</p>
2.	Assess the reasonableness of costs.	Licensees will be required to demonstrate that the cost of the asset is reasonable and	The following information will be of interest to the Regulator, among others:

No.	Proposed criteria	Explanation	Relevant information
		justifiable, taking into account escalation and contingency costs.	<ul style="list-style-type: none"> i. benchmarking of costs with prevailing industry practices; ii. project costs breakdown; iii. justifiable competing technology; iv. skills of decision-makers and project managers etc; v. estimated total project cost compared to actual audited project costs; vi. comparative exercise of different technologies to inform decision; and vii. 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.	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> i. Information on industry good practices will be used to assess this requirement.

No.	Proposed criteria	Explanation	Relevant information
	with good industry practice.	defined scope and standard of work is 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.	<p>i. The licensee should be able to provide justification to the Regulator to show that sound business practices were followed if requested to do so.</p> <p>ii. The licensee should demonstrate that it acted in a reasonable manner and used a reasonable standard of care in its decision-making process.</p>	<p>i. Licensee should prove to the Regulator that decision-makers have the required skills, capabilities and delegated authority to make the decision.</p> <p>ii. Provide details (CVs) of decision-makers if required.</p> <p>iii. The licensee should demonstrate to the Regulator that PFMA and internal approval policies and procedures were followed when making the decision. Such information may include:</p> <ul style="list-style-type: none"> a. delegation of authority matrix; b. Boards' minutes; and c. Supply Chain Management processes.

QUESTION 10: What other criteria should be considered for capital expenditure?

QUESTION 11: How should NERSA deal with prudency matters where NERSA is not involved in the construction phase of the asset?

Operating Expenditure to Provide a Regulated Service

54. All operating expenditure incurred by the licensee to be included in the AR will be assessed on the following principles, among others.

Table 4: Criteria for assessing operation expenditure's prudency

No	Proposed criteria	Explanation	Relevant information
1.	Assess whether the decision to incur the cost is consistent with good industry practice	i. 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).

No	Proposed criteria	Explanation	Relevant information
2.	Assess the reasonableness of the costs	The prudency review is based on the conditions prevailing when the decisions were made.	<ul style="list-style-type: none"> 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.
3.	Assess whether due care, good judgement and compliance with sound business practices was adhered to before incurring the cost	<ul style="list-style-type: none"> i. It is expected that decision-makers have the required skills, capabilities and delegated authority to make the decision. ii. The licensees' decisions must be reasonable in the context of information which was known (or should have been known) at the time the decision was made. 	<ul style="list-style-type: none"> 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. Information on future demand/supply used to arrive at the decision to incur the cost will be of interest to the Regulator.

QUESTION 12: What other factors should be considered for assessing prudence for operation expenditure?

QUESTION 13: What test should the Energy Regulator apply to determine reasonableness of costs both CAPEX and OPEX in nature?

QUESTION 14: Please provide further comments on the proposed prudence assessment criteria to be adopted by NERSA. Please substantiate your response.

55. If the above is accepted as a guide for prudent operations, then the licensee must demonstrate that its expenditure and activities are aligned with the above to enable its expenses to be included in the allowed revenue.

CONCLUSION

56. Comments solicited from the stakeholders and the members of the public on the proposed prudence assessment criteria will be used to finalise the criteria by the Energy Regulator to assess the prudence of costs incurred by licensees before allowing the costs into the AR.

57. Members of the public are requested to submit comments in writing to:

Post: Attention: Head of Department (HOD) – Petroleum Pipelines Tariffs
The National Energy Regulator of South Africa
PO Box 40343
Arcadia
Pretoria, 0007

Email: pipelines@nersa.org.za

Tel: 012 401 4777

Fax: 012 401 4700

58. The closing date for the submission of comments is close of business on 18 December 2017.

ACRONYMS

AER	Australian Energy Regulator
AR	Allowable Revenue
Capex	Capital Expenditure
IPP	Independent Power Producer
IPART	Independent Pricing and Regulatory Tribunal
MYPD	Multi-Year Pricing Determination
NERSA	National Energy Regulator of South Africa
OECD	Organisation for Economic Cooperation and Development
Opex	Operational Expenditure
PPA	Power Purchase Agreement
PPE	Property, Plant & Equipment
RAB	Regulatory Asset Base
ROR	Rate of Return

REFERENCES

1. Alexander, I. and Harris, C. 2005. The Regulation of Investment in Utilities. Concepts and applications. *World Bank Working Paper No.52*.
2. Australian Energy Regulatory. 2012. Regulatory Practises in other Countries: Benchmark opex and capex in energy markets. Available online at: <https://www.accc.gov.au/system/files/Regulatory%20practices%20in%20other%20countries%20-%20Benchmarking%20opex%20and%20capex%20in%20energy%20networks.pdf>. Accessed on 13 November 2017.
3. Electricity Regulation Act no 4 of 2006. Available from: https://www.acts.co.za/electricity-regulation-act-2006/notice_no_660_of_2006. Accessed on 3 September 2017.
4. Gladstone Area Water Board (GAWB). 2015. Review of Capex and Opex. Queensland and Competition Authority.
5. NERSA. 2004. National Energy Regulator Act of 2004. Available online at: [http://www.nersa.org.za/Admin/Document/Editor/file/Legislation/Petroleum Pipelines/Acts/Petroleum%20Pipelines%20Act%2060%20of%202003\(1\).pdf](http://www.nersa.org.za/Admin/Document/Editor/file/Legislation/Petroleum%20Pipelines/Acts/Petroleum%20Pipelines%20Act%2060%20of%202003(1).pdf). Accessed 14 November 2017.
6. NERSA. 2003. Petroleum Pipelines Act of 2003. Available online at: <https://www.google.co.za/search?q=petroleum+pipelines+act+regulations&spell=1&sa=X&ved=0ahUKEwjF55j5kMjWAhVqJcAKHQH3ALoQvwUlligA&biw=1600&bih=800>. Accessed on 14 November 2017.
7. Independent Pricing and Regulatory Tribunal of New South Wales (IPART). 2016. Hunter Water Expenditure review. Available online at https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/pricing-reviews-water-services-metro-water-legislative-requirements-hunter-water-corporation-pricing-investigation-commencing-from-1-july-2016/consultant_report_by_jacobs_-_hunter_water_expenditure_review_-_june_2016.pdf . Accessed on 12 July 2017.

8. JT Browne Consulting.2009. Costing & Regulatory Consulting to Rate-Regulated. Available online at: http://eifrs.ifrs.org/eifrs/comment_letters/43/43_4500_John_BrowneJTBrowneConsulting_0_JTBCResponsetoDP20142.pdf. Accessed on 14 November 2017.
9. McDermott, K. 2012. Cost of service regulation in the investor-owned electric utility industry. *Edison Electric Institute*, pp.3-4.
10. Missouri Consultants for Education. LLC. 2017. Regulation 3166: Financial operation: Financial management: Federal Award, Allocable Cost Principles. Available online at: <http://www.marionville.us/RegPDF/R3000/R3166.pdf>. Accessed on 16 July 2017.
11. NERSA.2016. Multi Year Price Determination Methodology (MYPD), NERSA, Pretoria.
12. Public Utility Commission. 2011. Public Utility Commission Study. Available online at: https://www3.epa.gov/airtoxics/utility/puc_study_march2011.pdf. Accessed on 17 June 2017.
13. Australian Energy Regulator. 2013. Better Regulation–Expenditure Forecast Assessment Guideline for Electricity Distribution. Available online at: https://www.aer.gov.au/system/files/AER%20Draft%20expenditure%20assessment%20guideline%20-%20distribution%20-%20August%202013_0.pdf. Accessed on 14 November 2017.
14. Utah State University. 2010. Assessing when costs are reasonable and necessary. *Audit News*, May. Available online at: <https://www.usu.edu/internal-audit-services/pdfs/may10.pdf>. Accessed on 14 November 2017.