OUTA

ORGANISATION UNDOING TAX ABUSE

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Comments on the National Energy Regulator of South Africa's consultation paper to determine a new price determination methodology

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1. INTRODUCTION

1.1 The Organisation Undoing Tax Abuse ("OUTA") is pleased to be considered as a valuable stakeholder in energy related matters that widely affect the public interest.

1.2 By way of introduction, OUTA is a proudly South African non-profit civil action organisation, comprising of and supported by people who are passionate about improving the prosperity of our nation. We envision a prosperous country, with an organised, engaged and empowered civil society that ensures responsible use of tax revenues.

1.3 Part and parcel to OUTA's mission is the challenging of legislation and regulatory environment, this includes participating and engaging with government on the review of the methodology utilised in the Multi-Year Price Determination ("MYPD").

1.4 OUTA appreciates the opportunity to participate in the process, specifically as a representative of broader civil society. As you may be aware, OUTA has participated in the MYPD processes in the past, the most recent being 2017 and 2018 respectively. In particular, OUTA called for a complete overhaul of the MYPD in relation to the Regulatory Clearing Account ("RCA"), which we submit, attributes significantly to ever-escalating electricity tariffs.

1.5 NERSA has asked for comments and suggestions relating to international benchmarking in its specific questions. OUTA suggests that there are a number of reports which might be of use to draw on. The World Resources Institute has an Energy Governance Initiative which has assisted countries in grappling with

the challenges that South Africa now faces. WRI EGI has produced a working paper on 10 questions to ask about electricity tariffs. The paper is concerned with good governance, and *"consider "good" electricity policy to be policies designed to improve effectiveness of public expenditures, reduce unnecessary costs, raise the quality of service, and minimize social and environmental impacts while seeking to reach specific policy objectives*".[1]

1.6 In the paragraphs below, OUTA will categorically illustrate its concerns and suggestions.

2. CONTEXTUAL CLARITY - DEFINITIONS

2.1. OUTA has observed a sense of ambiguity from the definitions proposed by NERSA, which we submit would require elaboration in the context of the MYPD.

Ad definition: "Stable Prices"

2.2. It is unclear why the definition is not "price stability" which can be described using the term stable prices, rather than the other way around.

Ad definition: "Demand"

2.3. NERSA defines demand as a rate at which electricity is consumed, but then suggests it is measured in MW. A Rate would be measured in kwh or MWh, not MW, which would be a measure of capacity.

Ad definition: "Retail Utility"

2.4. It is not clear if retail is a separate definition to utility, therefore clarity on this aspect is warranted. OUTA submits that a retail utility would be an institution or

[1] See https://files.wri.org/d8/s3fs-public/wri_10questions_paper3_final_041714.pdf.

company that sell electricity to the final end-user. An electricity utility would engage in generation, transmission or distribution and could also be a retail utility.

Ad definition: "Trading"

2.5. OUTA submits that the definition does not recognise the possibility of more than one trader. Thus, there are multiple types of traders, it may be easier to differentiate by means of separate definitions that apply to both suppliers and non-physical traders.

Ad definition: "Activity Based Costing (ABC)"

2.6. OUTA submits that the definition is ambiguous and ought to be simplified.

Additional definitions:

2.7. Additional definitions that might prove useful in the context of tariff setting, which may include:

"Prosumers": Consumers who can produce their own electricity.

"Retail Electricity Sales": The sale of electricity to end users, including residential, commercial, industrial, and agricultural consumers, among others.

"Smart Grids": Variously used to describe any grid deploying new network technologies or approaches

3. THE CHALLENGE FROM A CIVIL SOCIETY PERSPECTIVE

3.1. It is common cause that South Africa has had an electricity system which has been vertically integrated with Eskom Holdings SOC Ltd ("Eskom") at the helm of a monopoly and generates approximately 90% of the country's electricity[2]. Eskom owns the transmission grid while both Eskom and local government (municipalities) own the distribution network.

3.2. OUTA commends and supports NERSA's acknowledgement that the current system is not fit for purpose. This is particularly so considering the imminent unbundling process of Eskom into generation, transmission, distribution, etc, which we submit is a primary driving factor for a review of the current pricing methodology.

3.3. However, the unbundling process has been delayed but this does not preclude NERSA from ironing out a solid methodology in anticipation thereof. Moreover, the legal aspect (i.e. governance and financial implications) of the unbundling process has yet to be presented before Parliament. From Eskom reports to Parliament, *"The balance sheet and the apportionment of the debt was a challenging issue. It was not a simple matter and related to each of the individual divisions' capacity to service debt based on their asset bases; their worth and what revenue could be generated from them. A lot of detailed financial modelling needed to take place and this was one of the reasons why the entity had chosen to set up divisions before creating separate legal entities".*[3]

[2] The South African Energy Sector Report 2019 http://www.energy.gov.za/files/media/explained/2019-South-African-Energy-Sector-Report.pdf.
[3] Eskom presentation to Parliament 3 June 2020 https://pmg.org.za/committee-meeting/30382/.

3.4. Without a real understanding of the costs associated with the different functions, specifically the Activity Based Costing, a new revised tariff methodology will be impossible to implement. OUTA therefore recommends that the consultation process be slowed down in order to allow for meaningful public participation, that will include consultation with energy experts and industry stakeholder alike. OUTA submits that NERSA cannot on its own accord develop a fresh methodology without technical input (and due consideration thereof) from energy experts and industry stakeholders.

3.5. In 2018, NERSA released Guidelines for Prudency Assessment, which we submit, could curb some of the worst excesses of the RCA tariff methodology. According to section 8.6 and 8.8 of the guideline, prudency needs to be assessed based on what was known at the time, and that the onus is on the licensee to prove prudency of costs incurred as prudence cannot be assessed without accurate information which is most cases lies with the licensee.[4] In OUTA's submission to the regulator on the RCA 2018 application, OUTA made the following submission: "*According to Eskom, municipal sales declined in the Western Cape due to energy savings, in KZN due to industrial closures, and in the Southern Cape due to a wheeling arrangement. Could these reductions have been predicted by Eskom. We would highlight the Southern Cape wheeling agreement with the Nelson Mandela Bay municipality. In a February 2018 media article, the wheeling agreement is described, arising from a pilot in 2006, obtaining a licence in 2013-2014 and expanding from there. We would therefore ask how it is possible that Eskom could not have foreseen a reduction in sales from this existing operation in the Southern Cape".*[5]

[4] NERSA Guideliness for Prudency 2018.
[5] OUTA submission to NERSA in response to Eskom's RCA 2018/2019 application.

3.6. OUTA provided a variety of examples and went on to conclude. "*we have shown that for the majority of the demand variations, Eskom should have been able to foresee them and we would therefore strongly recommend that associated costs should not be allowed*". We therefore submit that application of the prudence guidelines could therefore be implemented by NERSA in the interim and in anticipation of the finalisation of the unbundling process and increasing connection of Independent Power Producers ("IPP's") to the national grid.

3.7. OUTA submits that although the unbundling process is a major factor that drives to the restructuring of the price determination methodology, the finalisation of such methodology cannot be neglected due to the fact that the unbundling has not yet materialised.

4. COST TO SERVE (COST OF SUPPLY)

4.1. The generation costs, as pointed out by NERSA, are widely varying. However, the costs of Eskom's fleet need to be adjusted to take several issues into account.

4.2. In October 2021, Eskom reached the dubious honour of being the world's biggest producer of sulphur dioxide pollution[6]. Eskom's emission reductions have been delayed with Eskom obtaining exemptions from compliance with minimum emissions standards[7]. This exemption is premised on the idea that if these pollution abatement measures were implemented, the electricity would be too expensive. In the new system, it is imperative that the full costs of supply be

[6] See https://www.moneyweb.co.za/news/south-africa/eskom-say-meeting-pollution-limits-would-cost-r300bn/.
[7] See file:///C:/Users/User-PC/Downloads/Annexure%203%20-%20ESKOMs%20MES%20Applications%20-%20Summary%2020%20March%202019%20rev%202.1.pdf.

included, including any external costs. Eskom claimed that to bring the ageing coal fleet into full compliance would exceed R300bn.[8] However, including these costs would enable society to ensure that all social burdens currently paid for by ordinary people living in the vicinity of particular power stations, are now included in the cost of supply.

4.3. In OUTA's previous submission to NERSA on the MYPD4 and RCA it was pointed out that the staffing costs of coal and nuclear fired power stations are not included in the generation costs but incorporated into Eskom's corporate costs. As IPP's must include these costs in their tariffs, the current system gives Eskom preferential treatment in this regard. A back of the envelope calculation would suggest that Eskom's coal power stations tariffs should be adjusted as a result. In general communication, Eskom compares the primary energy costs of its own generation vs the REIPPs – this makes renewable energy project generated electricity appear to cost nearly eight times as much as Eskom generation. However, if you include the costs of employees, the generation capex and depreciation etc costs into the Eskom generation costs, which are already included in the REIPPP price that Eskom pays to IPPs, the picture changes with Eskom generation is only about half the cost of Renewable Energy. If you add in environmental costs of Eskom cleaning up its generation fleet, spread over 5 years, then Eskom is about 60% of the costs of renewables.

4.4. For 2024, Eskom predicts that the cost of Eskom primary energy generation will double. According to the IRP2018, the predicted costs of Renewable Energy power plants will proportionally decrease as cheaper power plants come online.

[8] https://www.news24.com/fin24/Economy/Eskom/minister-cracks-down-on-eskom-sasol-over-pollution-20210310

Even if the actual costs of renewable energy stayed the same, when Eskom costs double, this means that within the next 4 years, renewable energy will be cheaper than Eskom coal generation.[9]

4.5. Furthermore, the Koeberg Nuclear Power Station appears to be undergoing an unlawful refurbishment, for which the costs are unknown, but close to R20bn. These costs depend on the National Nuclear Regulator's ("NNR") assessment of the safety upgrades that are needed to allow Koeberg to extend its life in line with the provision as set out in the National Nuclear Regulator Act, 1999 ("NRRA") and the applicable regulations therein.[10] These costs need to be explicit when such generators sell their power into the grid.

4.6. OUTA would therefore appeal to NERSA to allow for a more rigorous process that allows for generation costs particularly to be "unbundled" prior to the implementation of any new system. A contrary approach would prejudice non-Eskom generation.

5. WHEELING AND LOAD PROFILE

5.1. The basis of the system change is that South Africa would have an Independent System and Market Operator ("ISMO") which would without fear or favour, transfer power from where it is generated to where it is sold. For this service, the ISMO would charge a fee (use of the wires fee).

5.2. The load profile of the country has seasonal changes and diurnal changes, which will continue to change due to external factors outside of NERSA's control.

[9] OUTA's own calculations derived from Eskom submission to NERSA on MYPD4 (2020).
[10] See GN R266 in GG 44394 of 26 March 2021.

An illustration hereof in the case of COVID-19 meant people working from home, that might arguably result in the smoothing out the diurnal profile, particularly in the residential sector.

5.3. The cost of photovoltaic power ("PV") has meant that many businesses and homes have now resorted to PV panels for residential use, therefor reducing the diurnal demand/load considerably. It should also be noted that the advent of cost-efficient storage will change the demand/load profile as well.

5.4. NERSA should acknowledge that to transition from our current system to a very different system is a process. The system and the progressing of the tariff methodology and structure needs to be an evolving process, which remains flexible to the changes that we have yet to see.

5.5. Municipalities constitute approximately 40% of Eskom's demand and many cities are now working on energy efficiency for cost and climate change reasons. Many municipalities are also building generation plants to supply their customers directly. As this new rollout of energy unfolds, it is likely that the Eskom generation fleet will become the generation of last resort. It is possible that Eskom's coal generation may become stranded as customers migrate to different sources. From OUTA's observations, it is unclear whether the Department of Public Enterprises ("DPE") has acknowledged this reality of migrating customers. A WRI working paper which examines a "green tariff design" for utilities might be of use to NERSA.[11]

[11] See https://files.wri.org/d8/s3fs-public/green-tariff-design-final.pdf.

5.6. In some instances, municipalities have some generation capacity, for example Cape Town's Steenbrass pumped storage (180MW)[12] and Ekurhuleni has landfill gas projects and several PV plants but is planning to procure about 680MW.[13] Whether an unbundling approach for municipalities would also apply in future is unclear due to the complexities of the local government fiscal framework. Nevertheless, should an IPP wish to supply a business in another municipality, it is unclear as to exactly how a wheeling cost would practically apply in such scenario. This requires that all municipalities provide cost of service analyses in a transparent way, which may be realised through municipal cost unbundling.

5.7. At a recent webinar (Nedbank Energy Dialogue, 30 September 2021), wheeling charges at municipality level were floated as 25c/kwh[14]. This seems exorbitant but without a transparent cost analysis that NERSA should require, it is impossible to assess what is reasonable.

5.8. Municipalities have traditionally used electricity prices to cross subsidise other services. In the new system, it should be possible for a homeowner or business to choose to buy from an IPP in another municipality, but municipalities could use their ability to set wheeling charges to prevent such transactions (resulting in a vice grip situation for the customer), unless the public has full disclosure.

5.9. A quasi-wheeling structure is currently in place in Cape Town, in terms of which IPP's wishing to feed electricity into the grid are forced to pay a charge of R13.03 per day and they receive 49.72c/kwh for any electricity fed into the grid and their

[12] See https://www.ee.co.za/wp-content/uploads/2017/12/B-Barta-Energy-and-Water-Resources-Engineering.pdf.
[13] See https://www.businessinsider.co.za/municipalities-ready-to-buy-and-sell-electricity-2020-5.
[14] See https://www.engineeringnews.co.za/article/electricity-wheeling-can-reduce-load-shedding-risk-if-legal-technical-uncertainties-are-addressed-2021-10-15-1/rep_id:4136.

consumption charge is 109.17c/kwh.[15] However, they are not allowed to be nett generators. This makes it uneconomical and encourages customers to stay dependent on the municipal supply, reinforcing a different monopoly.

5.10. The implementation of time of use tariffs ("TOUT's") could be a useful signal to flatten the load profile and ensure energy efficiency. However, TOUT's are not implemented in the residential sectors. Implementing TOUT's only in business and industry would prejudice one class of customer and manipulate the system to benefit some and prejudice others. Clarity is required on whether TOUT's would be implemented universally or whether the current discretionary system will apply. OUTA submits that the current system needs to be overhauled as part of the review.

5.11. There are currently a variety of Eskom tariffs based on economic activities, (i.e. industrial, agricultural, etc.). It is therefore assumed that all these tariffs will be done away with. The importance of flexibility and diversity in the new distributed system will mean that such categories of customers will not necessarily be uniform categories and cannot be treated as such.

5.12. OUTA submits that a new system should have a set of wheeling tariffs which would include, *inter alia*:

5.12.1. Distance to wheel, kVA of the line, time of use, etc;

5.12.2. Should subsidies be required, for example, Free Basic Electricity for indigent customers) then those subsidies ought to be implemented by Treasury, through the relevant authority such as the Department of

[15] https://www.sustainable.org.za/uploads/files/file49.pdf.

Agriculture, Land Reform and Rural Development or the Department of Cooperative Governance and Traditional Affairs; and

5.12.3. Municipalities could add an additional charge to cross subsidise services by means of a surcharge, but this would need to be regulated and communicated to customers in a fair and transparent manner.

5.13. Bulk buying of electricity and any associated discounts would be a function of negotiations between the generator and the customer and not part of the ISMO. For example, renegotiating current special pricing agreements ("SPA's"). The regulation of the transaction is only to ensure that the costs to wheel the power are included in the tariffs charged.

5.14. There are current and future costs associated with specific current generation for which Eskom has not made any provision (i.e. nuclear decommissioning and nuclear waste disposal). These costs were purportedly to be accrued during the lifetime of the generation, but the current situation is that these costs are paper entries, and it is likely that Treasury will end up filing the deficit. In this regard, NERSA must make public any costs of supply/cost to serve study that it has undertaken.

5.15. The principle of least cost to supply first is commended, but it is difficult to understand how this will apply in practice. To illustrate this, wind is the cheapest cost to supply etc, with new coal and nuclear being the most expensive (including externalities).[16] However, coal/nuclear was generally used as a " base load" running for 24 hours a day, is not easily ramped up and down, thus it is

[16] Lazard 2020 and IRENA 2020 referenced
https://en.wikipedia.org/wiki/Cost_of_electricity_by_source#Global_studies

unclear whether those generators would still be cost effective if only required for 3 to 5 hours daily. Using a base load plant for a limited time of day will make it a very expensive option as the generator will need to recover all its costs over a shorter time.

5.16. Least cost to supply will work perfectly for IPP's on cost but not necessary on dispatchability and it is not clear how the existing Eskom generation will fit into the system. If the system is to be manipulated as a result, then this needs to be explicitly stated as an option, including the costs of doing so and the time period. South Africans need to understand that they will be subsidising the continuance of uneconomic generation plants, until sufficient new generation is deployed. This cannot be hidden from public scrutiny.

5.17. This is the situation that has *de facto* existed to date and has resulted in the ever-increasing electricity prices due to the Eskom fleet not being maintained and its maintenance and coal operations bill rising sharply. According to Eskom, *"The use of expensive power stations (with no tied colliery) and a steady decrease in cost plus mine production due to a lack of investment has lead to an increase in procurement on medium term contracts with additional transport cost. On average 30% of coal costs relate to the transporting of coal".* Eskom admits that for a very similar/lower energy output historically, Eskom is producing a similar output with a much more expensive coal supply mix.[17]

5.18. The transitional situation might involve part of the Eskom generation with price regulated as per the MYPD but with much more rigorous prudency rule

[17] Eskom presentation to Parliament 2021, https://static.pmg.org.za/210217Eskom_Presentation_17_Feb_2021.pdf.

application, and that the ISMO then regulates new generation and SSEG with a updated methodology.

5.19. NERSA has a duty to protect the customer as part of its legislative mandate, which we submit, has not upheld in the past decade. OUTA is unaware of any factor the precluded NERSA from instigating studies and research to determine the cost of supply in the past.

5.20. In 2010, a group of academics, NGO and labour researchers analysed the power sector in South Africa as part of a global initiative. While this report is more than a decade old, OUTA observes that some of its conclusions and recommendations are still valid. For example, in its analysis of the regulator process, the report found *"…shifting responsibilities, opaque appointment procedures and limited capacity, have contributed to undermining its authority and to the lack of capacity of the Regulator in key areas, particularly regarding its social and environmental mandate, substantive and consistent inclusion of weaker groups in decision-making processes, and effective and creative imposition, monitoring and enforcement of licence conditions".*[18]

5.21. Core to the effective regulation of the electricity industry is public trust in the regulator. OUTA submits that NERSA does not have a bad track record in relation to its attitude towards public consultation, but in this process, there is a need for additional transparency and a need for a longer iterative process that ensures that everyone is kept up to speed with progress. Large businesses can easily obtain resources to track the NERSA process, but civil society requires

[18] See https://www.reeep.org/sites/default/files/EGI%20South%20Africa%20Report%20-%20March%202010.pdf.

additional briefing to ensure that they are informed sufficiently to enable meaningful participation. OUTA submits that such empowerment is part of NERSA's role and mandate.

6. STAKEHOLDER QUESTIONS

6.1. In many other countries, the energy system transformation has already occurred, and lesson can be learned, particularly with regard to development country challenges. *"Regulators and governments often require utilities to offer subsidized prices to some customer classes. This is done in order to maintain the "affordability" of electricity services and for other economic and social reasons (see Box 4). The financial strain caused to utilities and customers by customers reducing their consumption from the utilities— through self-generation in both India and Germany, net-metering policies in the United States, and FiTs in several countries—are all examples of how new system complexities create new concerns over electricity prices and the equitable distribution of costs and benefits".*[19] The Future Energy Grid report and others could provide some insights to NERSA on issues to be considered in answering the various questions it is posing to itself.

Ad Stakeholder Question 1:

Stakeholders are requested to comment on the following:

a) The transformation of the Electricity Industry and its implications from the stakeholder's perspective, especially:

a. what is driving change; and

b. their expectations from the transformation.

b) What are your views on electricity market structure, and what would be the

[19] See https://www.wri.org/research/future-electricity-grid.

alternative structure?

c) The reasonableness of calculating average price based on the forecast sales.

d) The fairness of allowing licensees to claw back lost sales through increased tariffs for consumers.

e) What alternative approaches to determine prices should be considered, that:

a. are not dependent on licensee forecasted sales; and

b. make the licensee carry the sales risk and not consumers

OUTA's response

6.2. Civil Society has observed the fallout of state capture and an energy policy mired in inertia as well as unfounded investment in fossil fuel, with little regard to the changing international environment. Not only has transformation of the electricity industry been delayed, but the economic implications were felt across various sectors in society whereby economic growth has been hindered.

6.3. **Answer to 1 a):** Change is being driven by necessity. The realisation that we need to transition from fossil fuels to renewables is only one change. There is also structural change of the entire electricity system that is needed which must deal with equity and historical issues too. The transformation must result in a power system that enables real choice of generation, that promotes transparency in electricity pricing, and contributes to a just transition and results in affordable electricity.

6.4. **Answer to 1 b), e), d) and e):** The questions posed speak to the current system and the current RCA rules. Price averaging enables cross subsidies for rural customers at the end of the line and to ensure that wealthier customers contribute to poorer households. However, the system has been abused.

6.5. In our view, NERSA has failed to apply its own rules properly in terms of allowing imprudent costs and failing to investigate the justification of Eskom's claw back applications. In our view, the licensee does carry the risk if NERSA did due diligence before deciding on the tariff applications.

6.6. An alternative system would need to put the customers' needs first, rather than balance reasonable profits versus electricity service. Electricity is supposed to be a driver / enabler for economic development and not a means of extracting profits from a captive audience. The restructuring and unbundling of Eskom and the setting up of the ISMO would hopefully assist with this.

Ad Stakeholder Question 2:

Stakeholders are requested to comment on the following:

a) Use of activity-based costing for regulatory price setting.

b) The implementation of the ABC approach in the SA Electricity Industry within:

a. the current electricity industry structure; and

b. a future disaggregated Electricity Industry.

OUTA's response

6.7. **Answer to 2 a) and b):** As discussed in our general introductory comments, the tariff structure would need to make distinctions between generation that is least cost and generation whose current costs are based on their providing power throughout the day. Should such power stations be required to only run 3 or 4 hours a day, they may become too expensive and no longer economically viable. In terms of the current system, they are power stations that are given preference as they are part of the Eskom fleet.

6.8. Most IPPs have 20-year power purchase agreements ("PPA's"). In a transformation from old to new, it is unclear how these PPA will be handled. Sudden change may send a wrong signal to the market if such PPA's were arbitrarily changed to fit with a new system.

Ad Stakeholder Question 3:

a) Stakeholders are requested to comment on the format to collect the demand analysis information.

b) Is this proposed information adequate to achieve activity-based costing regulation? If not, what are other alternative types of information.

OUTA's response

6.9. **Answer to 3 a) and b):** There is no indication of the assumptions behind the data. Demand is not consistent thus the data needs to be produced in real time and integrated into the ISMO which should be able to meet the demand in real time. For example: The cost of supply to meet demand will depend on the distance from where the power is requested to where it is produced. Aggregate demand data is not sufficiently detailed to do this.

Ad Stakeholder Question 4:

a) Is this information adequate to achieve activity-based costing regulation? If not, please provide an alternative

b) What would be an appropriate tariff cost build-up for a generation business to make a return on its investment?

c) Stakeholder are requested to comment on the appropriateness of the approach proposed by NERSA to set the generation component of the price of electricity.

d) Which international benchmarks and best practices should NERSA consider – both in terms of type and sources.

e) How should NERSA ensure that only efficient costs from the distribution utilities are recovered?

f) Is the list of costs identified by the Energy Regulator sufficient, if not suggest the other relevant costs?

OUTA's response

6.10. **Answer to 4 a) to f):** The consultation document blurb before the questions appears to refer to municipalities and generators interchangeably but the table speaks to specific generation plants. Municipalities could conceivably be "traders" buying and selling electricity without owning any generation plants.

6.11. However, municipalities could also own generation plants. It is unclear whether municipalities will then be regarded as a generator in total for the purposes of establishing costs. This could include different generation assets for example, pumped storage or wind farms. Whether such a municipality is labelled a generator plant or a collection of generators each teased out would affect, for example, the load factors. If the municipality is regarded as a generator, then it might have a higher load factor as a mini system, rather than each of its individual generation plants. Similarly, a mine might also have several generation plants on site. It is unclear how NERSA proposes to account for the great variety in the current system which diversity is likely to increase.

6.12. As raised elsewhere in the submission, OUTA would refer NERSA to the World Resource Institute's Electricity Governance Initiative which has produced a

number of working papers and reports which aimed to assist developing countries in their electricity transitions.

Ad Stakeholder Question 5 and 6:

a) Is this information adequate to achieve activity-based costing regulation? If not, please provide an alternative.

b) What would be an appropriate tariff cost build-up for a transmission business to make a return on its investment?

c) Stakeholders are requested to comment on the appropriateness of the approach proposed by NERSA to set the transmission component of the price of electricity.

d) Which international benchmarks and best practices should NERSA consider – both in terms of type and sources?

e) How should NERSA ensure that only efficient costs from the transmission utilities are recovered?

f) Is the list of costs identified by NERSA sufficient? If not, suggest the other relevant costs.

OUTA's response

6.13. **Answer to 5 and 6 a) to f):** The key issue here is that OUTA believes that transmission and distribution should not be used to make profits for either the national government or the municipalities. The transmission and distribution costs should include maintenance and refurbishment to ensure that the grid is in line with international best practice. The cost of the grid also needs to ensure that it address electricity access in an equitable manner. In this instance averaging the costs of the transmission system might be an appropriate mechanism to avoid some areas or classes of consumer being unfairly treated.

Ad Stakeholder Question 7:

a) What are the cost elements at the trading level of electricity value chain?

b) The pricing approach intends to separate out the 'wires' business of electricity supply (transmission/distribution) from the 'transactions' business of trading – is this realistic in the current market? Please substantiate your answer.

c) How should the NERSA ensure that the costs at trading level are efficiently recovered?

OUTA's response

6.14. **Answer to 7 a) to c):** It is not clear how electricity is defined as a bulk product. Electricity is somewhat different to flour or petrol. If there are willing generators, a grid system and willing buyers, such contracts can be negotiated with the costs of generation benchmarked, the cost of the grid being a standard cost and the buyer can then negotiate a market price.

6.15. In a distributed and unbundled electricity system, it should not be possible for any generator to artificially hold the price at a very high level as customers can then buy from alternative sources. It might be possible for NERSA to use international benchmarking and the South African experience, for example of the Renewable Independent Power Producer Programme ("REI4P") to provide guidelines and to potentially investigate anything that appears to be price fixing. Traders would simply be middlemen that municipalities or large generators might use to buy electricity at a reduced bulk tariff or sell to a number of customers.

Ad Stakeholder Question 8:

a) Comment of the costs list required from retail business

b) How could the price of retail business be best set?

OUTA's response

6.16. **Answer to 8 a) and b):** OUTA submit that this is the part of the current system that is inadequately regulated. Part of the reason for the failures, is that tariffs are not transparent, and retailers and distributor have a multitude of tariff bands. Additionally, costs are hidden in order to inflate costs of those on selling electricity from distributors.

6.17. The best means forward is transparent tariffs that are not complicated by assumptions that are not related to the realities of South Africa. For example, the idea that increased use of electricity pushes households into the next tariff band assumes that small households are the norm and fails to consider that poorer households would have more people in one household, and a fairer system might be to allocate per person not a household. OUTA does not advocate this as it is not practicable, but any tariff system needs to consider the current problems and realities against a South African context. The system should redress those inequalities and not exacerbate them.

Ad Stakeholder Question 9:

Stakeholders are invited to comment on whether:

a) the proposed approach addresses the concern raised about the current pricing approach detailed in sections 4 and 5 above;

b) the proposed model achieves efficient economic allocation of resources used to supply electricity;

c) the proposed approach will encourage efficient investment into the sector; and whether the model caters for the unbundled electricity sector with an ISO.

OUTA's response

6.18. **Answer to 9 a) to c):** In our view, the above approach is not dynamic enough. The system cannot be narrowly generation focused but must be geared to a systems approach and towards meeting demand in a way that ensures that everyone can have access to affordable reliable energy. While the system can be geared towards procuring the least cost generation first, the system needs to keep sufficient contracted reserve to meet increases in demand. In the ideal world, this might mean a renewable based generation system with storage and quick start/ dispatchable power to enable the supply to follow the load.

6.19. However, our current system has clunky large nonflexible plants which are expensive (increasingly so if costed properly including externalities). They are also unreliable and due to the failure of the Department of Mineral Resources and Energy ("DMRE") to procure sufficient new generation, the older plants risk destabilising the system as they are large and when they go offline suddenly, it is difficult to replace them instantly.

6.20. Eskom has opted to use its diesel "peakers" and loadshedding to try to fix the problem which is expensive both from an expensive generation cost and a broader societal cost of not having electricity available. Ideally, the tariff system would cost power so that it can only call on these older plants when needed rather than using them continuously and then having to scramble when they fail, but this would make them even more expensive. Eskom generation would then have to bear those costs, which would not be recovered. Eskom generation would be in the current situation where its power is too expensive but unlike the current situation, there would be a high chance that customers would not buy from Eskom but choose to buy elsewhere.

6.21. In addition, the current Eskom fleet would incur carbon penalties, further increasing its unpopularity. However, without any new renewable generation, customers might have no choice. If the system needs to ensure that it has sufficient power to follow the load, then ISMO may need to procure back up generation that is expensive, but which is then billed as a reliability charge for those times when there is insufficient power in the system.

6.22. It is unclear what recourse a customer would have if they bought wind power but due to a large load, the wind power they bought was not available – despite the wind generator providing sufficient electricity into the grid.

6.23. In essence, it is important for NERSA not to rush a new tariff system but to hold a series of workshops to address many of these difficult issues and to assess how such transformations have been carried out in other countries like India and Brazil.

Ad Stakeholder Question 10:

Stakeholders are *requested* to comment on:

a) whether TOU rates encourage economic allocation of resources and accurate investment decisions from both the demand side and supply side;

b) the reasonableness of charging TOU prices for baseload consumption, particularly during peak energy demand periods; and

c) pricing approaches that will lead to proper allocation of costs to customers based on the resources that are used to generate electricity to serve the type of demand – reflecting the cost to serve, regardless of when they need it.

OUTA's response

6.24. **Answer to 10 a) and b):** OUTA believes that TOU tariffs are a way to attempt to smooth out the load profile and reduce peaks. In a residential example, many customers have now bought solar water heaters, and govt embarked on a solar water heater rollout programme for those households unable to buy their own. Although the SWH of DMRE was a victim of the state capture project, with priorities being directed to unaffordable generation options instead of energy efficient options, technologies such as SWH enable residential customers to switch their geysers with electrical backup so that they are not on during peak times. Currently, there is no municipality TOU tariffs that we know of, and the evening peaks are due to residential customers cooking and using hot water at the same time.

6.25. Peaking plants are expensive, and their use should be discouraged by the ISMO. One way of doing that is to use TOU tariffs to shift customer behaviour.

6.26. **Answer to 10 c):** Cost reflective tariffs are not unrelated to the time of use as the system needs to procure additional power (potentially more expensive power) at times when the system is tight. Those customers that are using power 24/7 need to plan for expensive peak periods in their production costs if they are unable to shift load, and to assess their behaviour and look for innovative ways to avoid peak periods. This is overall beneficial for the system which does not have to plan for expensive peakers to cover widely varying peak and off-peak loads.

6.27. It is OUTA's understanding the use of air conditioning in recent years has meant that the summer low demand period is not as low as in the past. The current

system ties in generation maintenance schedules with time of use tariffs. However, the new system should focus on energy efficiency and keeping the cost of the integrated system low with the generation plant owners deciding their maintenance schedules independently. The system and the generation plants would be decoupled.

Ad Stakeholder Question 11:

a) Stakeholders are requested to comment on the appropriateness of using indexing as a method on increasing approved prices.

b) What is the appropriate method of indexing electricity/increasing approved prices?

c) Which other indicators can be used to index electricity prices, other than inflation?

OUTA's response

6.28. **Answer to 11 a) to c):** In terms of providing a fair system of increases, inflation linked price increases relate to the cost of living and this should relate to any increases in electricity related costs. However, individual PPA's might include additional costs. For example, Karpowership proposes to link their tariff to the cost of liquified natural gas ("LNG") internationally and to the United States Dollar / South African Rand exchange. It is unclear whether NERSA proposes to disallow this kind of contracting.

6.29. We propose that NERSA (when deciding on electricity generation licences) make it a condition of any permits that electricity tariffs may not increase beyond inflation without extraordinary circumstances and such adjustments would need full meaningful participation by the public.

7. CONCLUDING REMARKS

7.1. OUTA contends that NERSA has failed to ensure that its licensees are efficient, and it is apparent that NERSA has allowed Eskom's tariffs to rise, despite prudency guidelines.

7.2. OUTA must therefore question the applicability of any new methodology considering NERSA's failure to apply its own rules and adhere to its legislative mandate as regulator.

7.3. However, OUTA commends NERSA on embarking on a much needed tariff methodology review and despite our misgivings, OUTA believes that the regulator must be supported in its willingness to take on such a complex process and to involve civil society in more depth than a simple notice and comment process.