

Eskom comments on NERSA consultation paper to determine a price determination methodology

Public hearings

Date: 5 November 2021



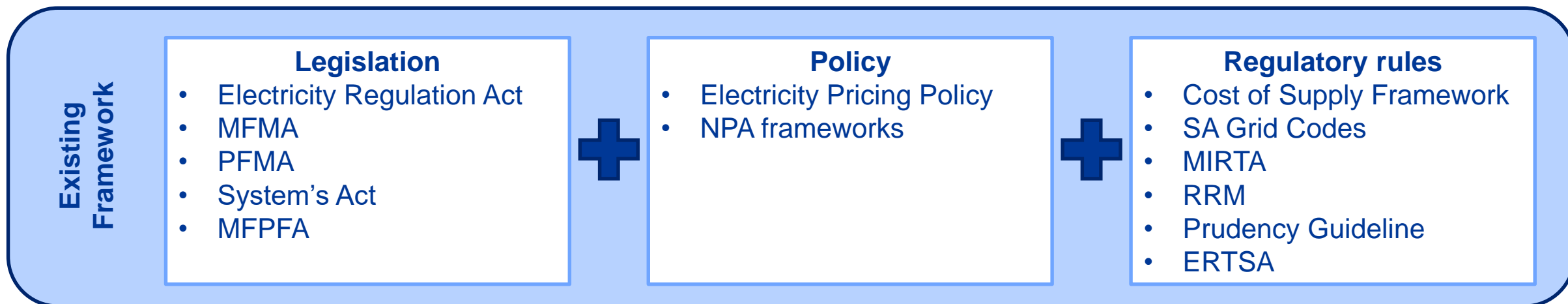
A CONSULTATION PAPER TO DETERMINE A NEW PRICE DETERMINATION METHODOLOGY

- ✦ Eskom has published detailed responses on its website
- ✦ Restructuring of industry is being led by DMRE – tariff matters follow policy
- ✦ Any methodology must be aligned to policy, legislative and regulatory framework
- ✦ NERSA has not indicated where three principles (ABC, type of use, marginal pricing) are applied internationally
- ✦ Meaningful and adequate consultation processes are essential (NERSA has taken between 9 and 15 months on consultation once methodology developed in the past)
- ✦ Determination of a revenue requirement is essential – efficient costs and a fair return (cost of capital)
- ✦ Application of required sequential processes – revenue determination, cost to supply allocation of revenue, then tariff design
- ✦ Eskom has reviewed NERSA's rejection decision of MYPD 5 application – NERSA has opposed

DMRE's Mandate vs NERSA's Mandate

	DMRE's Mandate/ Responsibility	NERSA's Mandate/ Responsibility	Comments
Setting and updating the ERA and NERA	✓	✗	Legislative reviews are undertaken by DMRE
Setting and updating the EPP	✓	✗	Policy is set by DMRE
Changes to Electricity Industry i.e. restructuring	✓	✗	NERSA's role would be to adapt rules once the DMRE have made a change to the Industry
IPP contracting	✓	✗	IPP contracting determined in the ERA
Requirements for NPAs	✓	✗	In accordance with EPP and DMRE frameworks
Give effect to legislation and policy	✗	✓	As per the NERA and ERA
Updating methodologies in line with changes in law and policy	✗	✓	All aspects of legislation must be met e.g., licensees to recover efficient costs and fair return (cost of capital)
Updating of codes, guidelines and licences to remain compliant with legislation and policy	✗	✓	Needs to be continuous alignment

NERSA's proposed consultation paper is based on objectives that move away from objectives of existing legislation, policy and rules



The objectives and principles must be aligned with the existing legislation and policy. The existing regulatory rules and codes would first need to be updated, if required, prior to finalisation of a new price methodology.



2.2 The following strategic objectives have been considered when developing the MYPD5 and associated interim methodology for 2022/23:

- Achieve stable electricity prices for the Electricity Industry
- Achieve a stable electricity system for the Electricity Industry that supports Eskom's sustainability
- Improved systems and tools

Existing framework would need to be aligned in order to incorporate new strategic objectives into a methodology

Section 15(1) of the ERA

“(1) A license condition determined under section 14 relating to setting or approval of prices, charges and tariffs and the regulation of revenues –

- (a) must enable an efficient licensee to recover the full cost of its licensed activities, including a reasonable margin or return (cost of capital);*
- (b) must provide for or prescribe incentives for continued improvement of the technical and economic efficiency with which services are to be provided;*
- (c) must give end users proper information regarding the costs that their consumption imposes on the licensee's business;*
- (d) must avoid undue discrimination between customer categories; and*
- (e) may permit the cross-subsidy of tariffs to certain classes of customers.”*

Policy Position 1 and section 2.2 of the EPP

Policy Position 1 of the EPP:

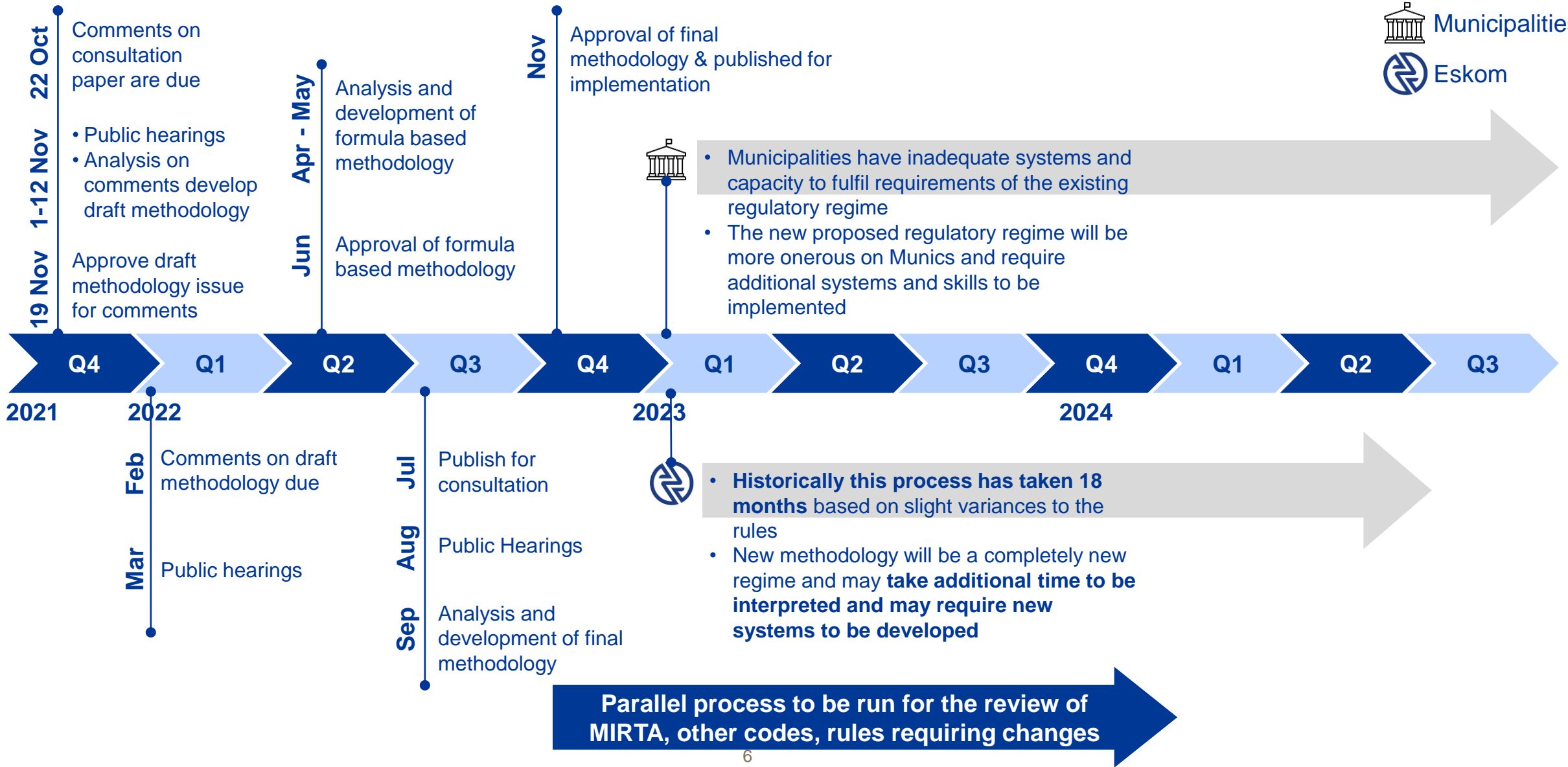
“The revenue requirement for a regulated licensee must be set at a level which covers the full cost of production, including a reasonable risk adjusted margin or return on appropriate asset values.”

Section 2.2 of the EPP :

“In the absence of competition, regulators may select from a range of methodologies to regulate the industry. All these options have some advantages and disadvantages. Regardless of the method of regulation or price formation it is essential that an efficient and prudent licensee should be able to generate sufficient revenues that would allow it to operate as a viable concern now and in the future.”

Compared to these clearly articulated principles found in legislation and government policy, principles that define NERSA’s proposed methodology for price determination are arbitrary, and in conflict to existing provisions of legislation, codes and guidelines, or incompatible with those provisions

Predicted timeline for establishing new methodology based on consultation paper is lengthy and likely to require a 3-year MYPD 5 application



The existing MYPD Methodology...is not the problem but its full implementation and consistent application is

Regulatory Clearing Account

Allows for the adjustment of under and over recovery of revenue



In line with ERA section 15(1a)

- Formula: Revenue = cost + fair return/cost of capital
- Revenue required to recover the prudent and efficient cost of supply



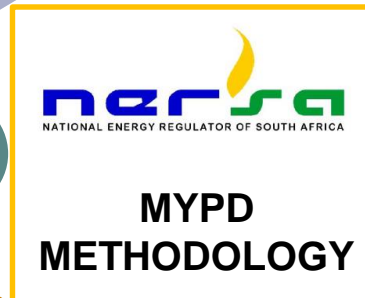
Cost of Service based methodology

- Requires all costs to be clearly stated.
- *Depr + Opex + PE + IPPs + IDM + R&D + SQI + L&T*
- Caters for long term financial sustainability



Adaptable to Industry changes

Section 5 of the methodology requires separate revenue for each division



Based on sound objectives

- Existing methodology adheres to regulatory principals as benchmarked across other regulated industries
- Methodology is not broken
- Has not been fully and consistently implemented



Applicability

- Refers to Eskom only
- Munics have a separate rule system
- New consultation paper refers to Eskom and others, requiring significant changes to systems & infrastructure for implementation



The regulatory framework does not stop at the revenue requirement but is a 3-step sequential process

Regulatory Regime

Tariff Structure

Tariff Level



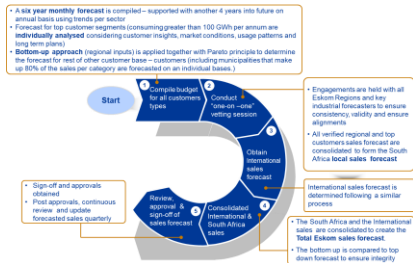
Relevant NERSA methodologies are already in place.
Required to be fully and consistently applied and timeous decisions made.
There is a rigorous process to determine a tariff and it is not based on an 'average' tariff rate.

Meeting the objectives of regulatory framework

Balancing between these objectives to achieve the best suited regulatory framework is key

Internationally recognised criteria to evaluate regulatory framework	Existing MYPD Methodology, ERTSA and Cost to Serve	Consultation Paper to determine a new price determination methodology
Sustainable – promotes recovery of costs for utility	Revenue requirement ensures the sustainability of Eskom. RCA mechanism allows for balancing of over/under-recovery of or revenue	No clear indication of how all costs will be recovered for provision of electricity No RCA mechanism has been included
Allocative efficiency – tariffs are set to send the correct pricing signals	Currently a tariff restructure process to enhance pricing signals	Tariffs indicate that there will be disparities between users
Productive efficiency – incentivises cost minimisation	The current methodology incentivises efficiency and savings	Unclear on incentivisation of cost minimisation and efficiency
Equity – access and affordability to customers	Programs in place have electricity to assist access and affordability	Will result in increase in residential tariffs - reducing affordability
Internationally benchmarked	Similar cost of service methodology applied internationally	NERSA has not indicated where three principles are applied internationally

“NERSA concern on sales volume variance is misplaced” ~ Prof Anton Eberhard – NERSA Consultation workshop



- Eskom has demonstrated on many occasions that neither Eskom nor Municipalities have control over sales volumes, and both rely on customer information to develop such a forecast
- Eskom undertakes a detailed process to determine the projected sales
- NERSA also undertakes its independent process to project sales, evaluating the price elasticity impacts

It is inconceivable that MYPD methodology or NERSA or Eskom or government could ‘set’ or forecast actual sales volumes. It is an outcome of a myriad of economic factors such as GDP growth, investor confidence, commodity cycles, disinvestment, deindustrialization, etc



- RCA mechanism that corrects for electricity demand under/over estimation is not a mechanism to ‘restore’ sales volume and revenue to the estimated level, but rather mechanism to correct for **fixed cost** caused by variances between estimated demand and actual demand
- This can be for benefit of consumer or Eskom depending on outcome of actual sales

- NERSA makes sales volume assumption at revenue determination stage
- NERSA adjusts in RCA to allow recovery of **fixed** costs
- If NERSA determines **lower** volumes initially, then higher initial price.
- If NERSA determines **higher** volumes initially – Fixed costs are subsidised initially – only pay for fixed costs many years later (when RCA liquidated)



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1.5.1. **Activity Based Costing (ABC)**: Disaggregation of the electricity supply industry into component activities, which are generation (Gx), transmission (Tx), distribution (Dx), system operations (SO), market operations (MO), trading (Td), other ancillary services (AS). This disaggregation forms the backbone of called Activity Based Costing.

- 1) Eskom already provides in its MYPD submission disaggregated costs for Gx, Tx, Dx, Retail
- 2) Eskom in cost-to-serve study, uses these disaggregated costs to allocate costs based on **cost causation and drivers**. From this tariffs are designed. Eskom is reliant on NERSA to approve changes to tariffs to reflect updated costs
- 3) Eskom supports that tariffs should be **unbundled and cost-reflective** (refer to Eskom 2020 tariff plan)
- 4) Costing principles are covered in some detail in Regulatory Reporting Manuals (RRM). The RRM requires that fully allocated cost (FAC) approach be employed in development of cost separation (i.e. disaggregation of directly attributable costs) and allocation (indirect, or common costs) methodologies.
 - Direct assignment of costs among licensed activities is preferred where practical, to avoid cross- subsidisation.
 - Common costs are allocated on the basis of cost causality, with observable 'cost drivers' identified having the aim of providing objectivity and transparency to allocation of costs.



1.5.2. Type of service costing – Differential Load Profiles:

Understanding that energy services are different and may demand different facilities within one or more of the activities defined above, especially at Gx level. These energy services have very different demand profiles which ideally should be supplied with generation plants that have the same or similar supply profiles. The demand

- Type of service does not indicate **cost** to utility
- Power systems are evolving, and concept of baseload, mid merit and peaking is no longer valid. What about Renewables?
- All power plants supply all consuming customers at a particular point in time – can't assume that “baseload” generation can be allocated only to apparent baseload customers
- Not possible/practical to allocate different activities' costs to different customer load profiles – some averaging is always required
- **Will increase the tariffs for most customers, including municipalities - assumes variability will be paid by all non-baseload customers.**

A request is being made by NERSA to “follow the electron”

- Request to complete demand analysis data by NERSA is **simply impossible**. A thorough understanding of the way an electricity system works needs to be appreciated.
- Nature of an interconnected power system is such that all producers of electricity and all consumers of electricity participate in exchange of power simultaneously.
- At its most fundamental, entire power system is oscillating in synchronism and power is produced by all generators and consumed by all consumers at same moment in time
- A further complication arises due to dynamic behavior of consumers and the generators who vary their demand requirements and generated power continuously in time. **This gives rise to an almost infinite number of circumstances** in which different generators supply different consumers through different transmission lines.
- As demand for electricity increases, more expensive generation must be dispatched to meet this demand. The last generator dispatched does not exclusively supply the last consumer requiring power but both now participate, simultaneously, with all other generators and consumers at that moment in time.
- From above, it is clear that no consumer or group of consumers can be mapped or be deemed to be supplied from any generator or group of generators.

In Eskom’s experience this has not been done anywhere else in the world



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1.5.3. **Marginal pricing to set tariffs:** A few of the activities identified in ABC above and within the type of service, particularly the Gx activity are delivered by a variety of component plants, which as explained in 2 above, have different costs. Focussing on generation, it is clear for that for each type of service, eg. baseload, there are a number of generators, with their different costs and would have been priced accordingly, which could be deployed to provide the service.

- This contradicts above approach as marginal price will be the price at a particular point in time irrespective of customer load profile “type”
- Does not state if this is long-run or short-run marginal costs, which will have very different price implications
- These concepts are mainly used in management decision making. It is not known that this is used anywhere in the world as basis for economic regulation of revenue or tariffs of regulated entities
- If used, for regulatory purposes, will have to be able to pass this method onto the end use customers – significantly increases complexity and volatility – with no benefit
- An embedded cost-to-serve study is a cost allocation method based on historical costs, as opposed to a marginal cost-to-serve study, which uses the incremental cost to serve a customer in order to allocate costs

Way forward – Much can be done within current NERSA processes without changing entire system

01

Determination of Efficient costs and a fair return/cost of capital (Revenue requirement)

- Responses provided by Eskom to this consultation paper have clearly clarified need for determination of a revenue requirement. This concept can also be referred to as establishing the efficient costs and a fair return (cost of capital)
- It is accepted that there is always room for improvement. Eskom has acknowledged this, and has already provided proposals for review of the prevailing MYPD methodology (as published in 2016) for NERSA consideration

02

Existing framework

- Present policy, legislative, regulatory framework is what needs to be worked within policy, legislation and regulatory framework related to the electricity industry has evolved over many years. It is acknowledged that further work needs to be done in this arena. It has been pointed out that this consultation paper seems to have not sufficiently considered the significant amount of progress already made.
- It is cautioned that policy and legislative requirements cannot be violated.

03

Eskom has submitted a proposal for restructuring of Eskom retail tariffs

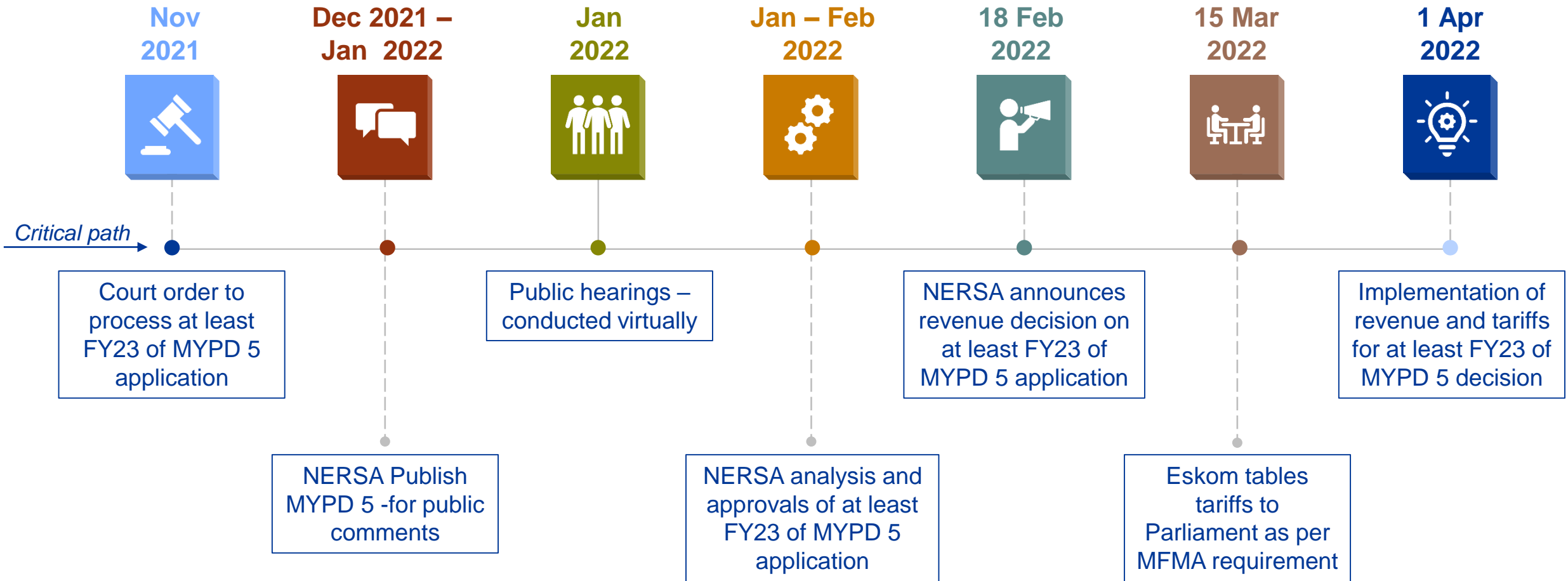
- Further unbundling of tariffs is required to accurately reflect current cost to avoid volume and trading risk and to reflect cost drivers more accurately. It allows for incremental changes.
- There is merit in ensuring that submission be urgently addressed as this would update tariffs to reflect disaggregated cost.
- Eskom is already in process of developing further proposals in an incremental manner for NERSA's consideration.
- Timeous decisions need to be made by NERSA

A decorative graphic on the left side of the slide. It features two overlapping circular frames. The upper frame shows a large solar power tower (CSP) plant with many heliostats reflecting light onto a central receiver. The lower frame shows a white wind turbine on a grassy field under a cloudy sky. The frames are surrounded by several thin, concentric circular lines.

Conclusion

- There is a mix in this document on revenue determination (cost plus return/cost of capital), average prices and tariffs and it is not clear exactly what NERSA is trying to achieve on all these issues and no proper cost determination methodology was provided.
 - Our inputs are that cost approval, cost-of supply and tariff development and restructuring are separate and sequential processes and detail is provided on how this works
- NERSA assumes all costs are lumped together and tariffs are based on an average price
 - Eskom's cost submission is done based on divisional cost and its NERSA that uses average price increase process to apply to tariffs.
 - Unbundling of these increases and unbundling of tariffs will be a vital and important step to ensure different tariffs for divisions and that NERSA has to allow this to happen
- NERSA implies that Eskom should take all volume risk if sales are not achieved – RCA variance seems to be of concern
 - Our input is that our forecasts are based much on information that customers give us and that change in sales volume is largely outside of our control. Is dependent on economic conditions
 - Can only be mitigated if fixed costs recovered through fixed charges
 - Are narrowing the gap between determined and actual to minimise variance
 - Is not additional payments to be made by consumers but initial subsidy to be recovered at later stage
 - The risk cannot be carried by the utility – need to recover efficient costs
- The intention seems to be to use historical information to determine future tariffs
 - The past costs on certain elements (IPPs, renewables, ancillary, support, Corporate elements ignored)
 - Concept of baseload, mid-merit, peak is outdated
 - Seems to be a big bang change, then indexing
- NERSA has included aspects that are currently not government policy, that do not align with EPP, Codes and even current NERSA rules and guidelines
- No consideration is given to how existing NERSA RCA liquidation and Court decisions will be addressed
- Instability and unpredictability is due to inconsistent implementation of the methodologies in decision making – not methodologies themselves. These include the MYPD, cost to supply, ERTSA and restructuring of tariffs.

With only 4 months remaining to 15 March 2022 for MFMA Tabling of prices, only viable option is processing of at least FY23 of MYPD 5 application



- *Critical to remain compliant with regulatory framework - Not sufficient time for public consultation of methodology from consultation paper; followed by application based on new methodology; followed by consultation on new application*
- *Only legal option available to NERSA is to process at least FY23 of MYPD 5 application*
- *SALGA and other associations have supported this approach*