AMEU GOODHOPE BRANCH MEETING

Presentation by

Vally Padayachee

CD(SA); FInstD; FIRMSA; MBA; MSc(Eng); GCC; EDP (Wits)

AMEU Strategic Adviser

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SAs ELECTRICITY CRISIS –LATEST STATUS FEEDBACK – PRESIDENCY UPDATE, JAN 2023 (1)

INTRODUCTION

In his address to the nation on 25 July 2022, President Cyril Ramaphosa announced a bold set of actions to address load shedding and achieve energy security.

The **National Energy Crisis Committee** (NECOM) has since been established to oversee the implementation of five key interventions:

1. **Fix Eskom** and improve the availability of existing supply
2. Enable and **accelerate private investment** in generation capacity
3. **Accelerate procurement** of new capacity from renewables, gas and battery storage
4. Unleash businesses and households to invest in **rooftop solar**
5. Fundamentally **transform the electricity sector** to achieve long-term energy security

The short-term objective of the Energy Action Plan is to **reduce the severity and frequency of load shedding** through immediate measures to improve the performance of Eskom's existing power stations and stabilise the energy system.

Our long-term objective is to **end load shedding altogether and achieve energy security** by adding as much new generation capacity to the grid as possible, as quickly as possible.

KEY ACHIEVEMENTS TO DATE

Schedule 2 of the Electricity Regulation Act has been amended to **remove the licensing requirement for generation projects** of any size to enable private investment at a much larger scale.

A new Ministerial determination has been published for over **18 000 MW of new generation capacity** from wind, solar and battery storage.

The pipeline of **private-sector embedded generation projects** has grown to over **100 projects**, with total capacity of more than 9 000 MW.

19 projects from Bid Window 5 have signed project agreements to supply **1 800 MW of solar and wind capacity**, and a further six preferred bidders from Bid Window 6 will provide 1 000 MW of capacity.

An additional 300 MW of power has been **imported from neighbouring countries**, with work underway to increase imports from the region.

Eskom has launched a **Standard Offer Programme** to purchase up to 1 000 MW of power from companies that have existing generation capacity for a period of three years, as well as an **Emergency Generation Programme** to purchase additional power when the grid is constrained.

Various **actions have been completed** to streamline authorisation processes for energy projects:

- **Transmission infrastructure has been excluded** from the need to obtain an environmental authorisation in areas where the **environmental impact is low.**
- The **timeframe for environmental authorisations** has been **reduced** to 57 days for projects gazetted as Strategic Infrastructure Projects.
- The **timeframe for registration** with NERSA has been **reduced** from four months to an average of 19 days.
- The **timeframe for grid connection has been reduced** from nine months to six months.
- The **timeframe for land-use authorisations** for energy projects has been **reduced** from 90 to 30 days.

CLASSIFICATION OF NATIONAL DISASTER IMPACT OF SEVERE ELECTRICITY SUPPLY CONSTRAINT (1)

"We are therefore declaring a national state of disaster to respond to the electricity crisis and its effects," Ramaphosa said, announcing that a Gazette classifying the severe electricity supply constraint a national disaster had been published by the Department of Co-operative Governance prior to his speech.

"To deal more effectively and urgently with the challenges that confront us, I will appoint a Minister of Electricity in The Presidency to assume full responsibility for overseeing all aspects of the electricity crisis response."

[PRESIDENT CYRIL RAMAPHOSA, SONA, 9 FEB 2023]

[per: "ENGINEERING NEWS", 9 GEB 2023]

NOW WITHDRAWN

AMEU CONVENTION 2023 (1)

1. The Convention would take place at the CSIR Convention Centre in Pretoria, with the gala dinner to be held at the Times Square venue nearby.
2. Deposits have been paid, and agreements have been signed.
3. The AMEU Affiliates have also paid deposits for the exhibition space at the CSIR.
4. The Call for Papers deadline was extended to the end of May.
5. Letters inviting VIP speakers and guests have been sent.
6. Sponsorships are being confirmed; however, the first spouse's day still lacks a sponsor.
7. The President Elect confirmed that planning for the convention was in progress at the municipality.

AMEU AWARDS 2023 (1)

1. Mr. Padayachee, AMEU Strategic Adviser informed the last AMEU Papers and Publicity Committee meeting that new criteria and awards are being developed and will be shared with the leadership soon.
2. It was AGREED to share the new draft format with the Executive Council rather than the standing committee to widen the consultation and input scope.

NRS048-9 – Edition 3 progress

How far is it, how far left to go..

Done so far:

- Comments received and divided into task teams
- Task teams finalized results
- Results included into a “first” final draft of NRS048-9 Edition 3
- This was presented to the NRS048-9 working group. It was generally accepted, with some time given for further comments
- Comments received from various stakeholders including Dx.

To do for NRS048-9 Working Group:

- Finalise document addressing new comments. And submit to NRS Committee

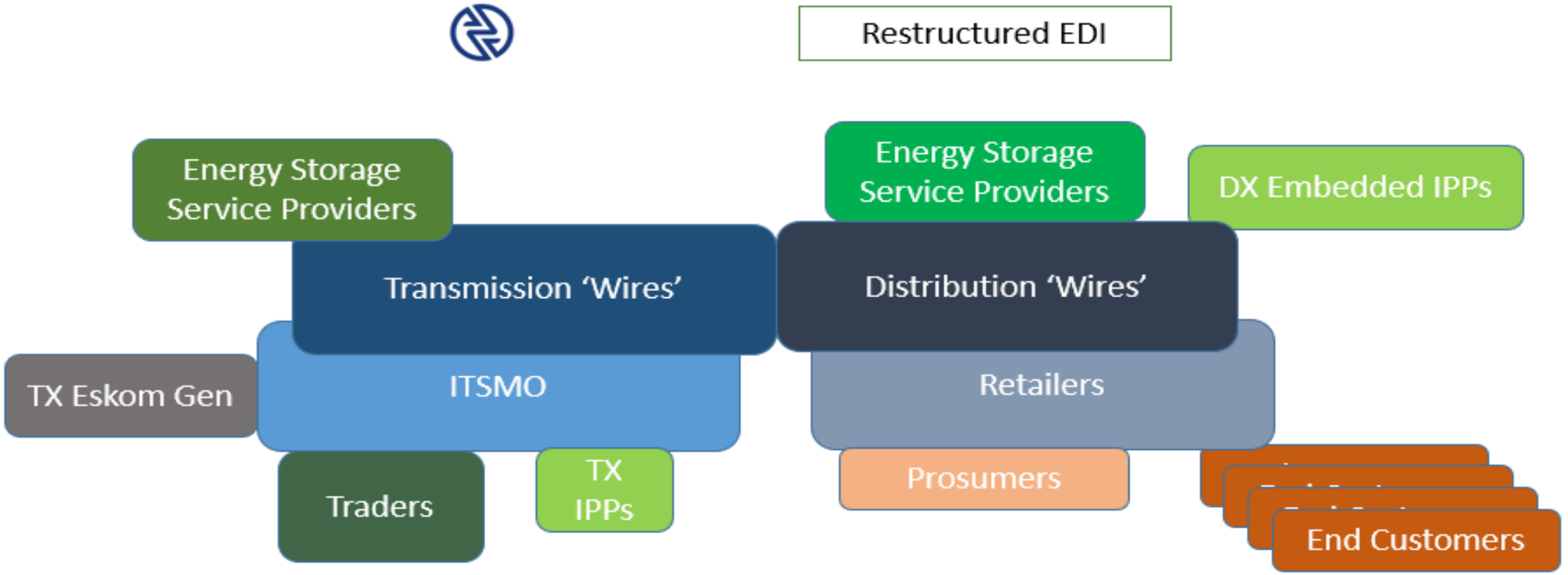
Beyond NRS048-9 Working Group

- NRS Committee to recommend the document to NERSA
- NERSA to hold public participation meetings
- NERSA to declare Edition 3 a license condition.

WHEELING MATTERS

1. A national wheeling framework is being coordinated by one of the workstreams (WS9) of the national electricity crisis committee, which aims to expedite the framework's establishment.
2. The drafting process is complex due to the diverse interests of many stakeholders.

What is the ‘End Game’?



UNDERSTANDING THE CURRENT CHALLENGES OF WHEELING WITHIN MUNICIPAL NETWORKS (1)

1. When trying to integrate wheeling principles within current municipal frameworks, there is a lack of harmony, tariff discrimination and, in many cases, the loss of revenue to the municipality.
2. Recovery of costs on the distribution grid is carried out via cost pooling per voltage level. This methodology is regulated amongst municipalities. This cost recovery method will either be a kWh recovery, a kVA recovery, or a combination of both.
3. The costs allocated to the voltage pool, the number of customers participating, the loading size and the load factors are essential factors in determining the cost recovery method.
4. In times of high growth coupled with high load factor customers, a kWh recovery method is most plausible as it spreads costs amongst a more prominent aspect of a tariff component.
5. The kWh recovery method has the effect of reducing the average tariff for all customers.

[Source: "Wheeling of Electricity: A Friend or Foe in the Energy Transition" by Leshan Moodliar, eThekwini Metro Elect; Innocent EA Davidson, DUT; Elutunji Buraimoh, DUT;]

IMPORTANCE OF WHEELING?

1. Notwithstanding the challenges associated with wheeling, there must be a progressive implementation plan, as it is not only policy driven but is now becoming a crucial component of connecting private generators to off-takers.
2. If there is a failure to accommodate wheeling, there is a risk of underutilised generators.
3. Moreover, the relationship between private generators and off-takers is becoming economically more robust in value as grid-priced electricity continues to grow above inflation yearly.
4. Municipalities will therefore continue to feel the pressure to implement wheeling frameworks to enable the virtual flow of energy from private generators to off-takers.

[Source: "Wheeling of Electricity: A Friend or Foe in the Energy Transition" by Leshan Moodliar, eThekwini Metro Elect; Innocent EA Davidson, DUT; Elutunji Buraimoh, DUT;]

THE WAY FORWARD – POSSIBLE WHEELING MODELS FOR MUNICS (1)

***1. Option 1*: Recover Network Charges Independent of Energy Usage**

To shift the revenue recovery mechanism of network charges away from the voltage surcharge. Shifting the network charge recovery away from the voltage surcharge would make the network recovery costs independent of the amount of energy that flows within the network. Enabling such a shift means that an additional 31% of network costs must be collected through kVA charges rather than kWh charges. This shift would significantly increase customer demand charges and exceed the NERSA benchmarks

2. *Option 2*: Municipalities remain agnostic to wheeling

Considering the cross recovery of network charges via energy rates, any form of wheeling will lead to an under-recovery. A simple yet effective means to avoid this scenario and implement wheeling speedily is to retain the voltage surcharge on the pre-wheeled consumption.

[Source: "Wheeling of Electricity: A Friend or Foe in the Energy Transition" by Leshan Moodliar, eThekwini Metro Elect; Innocent EA Davidson, DUT; Elutunji Buraimoh, DUT;]

THE WAY FORWARD – POSSIBLE WHEELING MODELS FOR MUNICS (2)

3. ***<u>Option 3</u>***: **Municipalities participate in the wheeling arrangement to enhance revenue generation**

A more innovative strategy would be to establish a mutually beneficial relationship around wheeling, which would contribute to a more substantial business case for the municipality. For example, a situation in which a wheeling entity could provide a scenario in which the wheeling of electricity would increase the municipality's revenue. This arrangement would be a "win" – "win" scenario that would encourage municipalities to implement wheeling as a diversified revenue stream instead of the conventional value-neutral virtual transaction

[Source: "Wheeling of Electricity: A Friend or Foe in the Energy Transition" by Leshan Moodliar, eThekwini Metro Elect; Innocent EA Davidson, DUT; Elutunji Buraimoh, DUT;]

THE PROPOSED DEVELOPMENT OF A MARKET MODEL FOR ELECTRICITY UTILITIES (1)

1. The AMEU Strategic Adviser, Vally PADAYACHEE informed the last AMEU Tariffs Committee meeting that discussions are on the go amongst key stakeholders including Eskom, SALGA, AMEU, etc to develop an appropriate market model for electricity utilities in SA that could include the following aspects:

   a) A fully non regulated free market model

   b) A semi regulated market model incorporating a central purchasing institution

   c) A bilateral market model

2. It is anticipated that munics in good standing will participate in all three models,(a), (b) and (c]. Munics in not good standing will only be allowed to participate in (b) and (c] only

SALGA MATTERS (1)

1. Dr. Silas Mulaudzi, SALGA advised at the last AMEU L&S Committee meeting of a study done by SALGA and its associates to determine the cost impact of Eskom load shedding on local government, including cost impacts on water reticulation, grid maintenance, and lost income.
2. Eighty-nine (89) municipalities participated in the survey.
3. A total cost of R24 billion was arrived at.
4. Ms. Mlambo, Eskom indicated that load shedding is also enormously costly to Eskom for similar reasons.
5. Mr. Padayachee indicated that the costs of load shedding are also being considered by Workstream Nine of the National Electricity Crisis Committee.
6. SALGA asked for guidance on the best use of this loss information going forward.
7. Members suggested that a large number of customers are building their own generation now, and it is unlikely that those customers will ever come back to the grid, meaning the losses caused could be permanent. Most large power users are indeed building their own generation now.

ESKOM MATTERS (1)

1. Eskom advised that the separation date for Transmission out of the single Eskom corporate structure will now only take place in 2025 due to PFMA and licensing issues.
2. Transmission, generation, and distribution are, however, functionally already separated, and each entity has a mock board in place, and new company names are registered.
3. Ms Refilwe Mokgosi, AMEU Immediate Past President mentioned that Eskom/NERSA Circular 124 proposes a basis for dealing with municipal debts to Eskom, but the circular is not clear and may, in its current form, lead to litigation. She requested further consultation on the matter.
4. As of Feb 2023 the municipal debt owing to Eskom was R58,5 billion. Dr Les, CoCTN indicated at the last AMEU Tariffs Committee meeting that there is national problem of affordability. There should be a joint approach to solving e.g Emfuleni munic's current challenges which also reflects a 75% unemployment rate

ESKOM SUPPLY STATUS (1)

1. Ms. Mlambo, Eskom informed the last AMEU Technical Committee that the Eskom leadership would soon release a media statement about the winter demand and generation forecast but could not share the details before the media release.
2. Members emphasized the importance of informing municipal utilities and large energy users about the expected energy supply during the winter months.
3. They also mentioned the lack of transparency surrounding the status of generation units compared to the open disclosures that Eskom do for their nuclear power station.

ECSA MATTERS (1)

1. Mr. Msibi, ECSA presented extensively at the last AMEU L&S Committee meeting in April 2023 on the various processes involved in accrediting engineers professionally, as well as on continued professional development requirements.
2. The focus was particularly on the **Identification of Engineering Work (IDoEW)** of allowable work to engineers with specific qualifications and experience backgrounds.
3. ECSA is amenable to do this presentation at municipalities for their professional engineering staff.
4. Members complained that the total fees for professional registration to ECSA and the respective Voluntary Associations are very high and that municipalities must please assist members with funding.
5. Eskom has apparently stopped paying for the professional registration fees of their engineers.

NERSA RELATED MATTERS

1. NERSA issued the following documents for public comments:
    a) Net billing
    b) Recommended tariff increase for munics of approx. 15%
2. Still awaiting finalisation of NMD rules
3. NERSA still working on new pricing methodology
4. NERSA will have consider final wheeling framework for legal mandating etc
5. NRS 048-9 Edition 3

AMEU TECHNICAL TRAINING COMMITTEE MATTERS

1. Johan Knoetze (“Ballie”), NMBM is the new chair of this committee. Pieter has retired
2. The committee is still continuing with virtual meetings
3. There is still a serious issue wrt qualified artisans getting their trade test certificates timeously from the SETAS

PART I – STASTISTICS

Date of exam	Candidates enrolled	Candidates wrote exam	Successes	Percentage passes
Nov 2022	**464**	**292**	**88**	**30.1%**
June 2022	329	208	47	22.6%
Nov 2021	417	263	75	28.5%
June 2021	402	244	83	34%
Nov 2020	488	233	127	54.5%
June 2020	Due to COVID 19, no June exams			
Nov 2019	493	310	164	52.9%
June 2019	433	305	113	37%
Nov 2018	448	303	107	35.3%
June 2018	375	255	108	42.3%
Nov 2017	350	246	124	50.5%
June 2017	349	234	149	63.7%
Nov 2016	494	338	185	55%
June 2016	315	216	121	56%

employment & labour

Department:
Employment and Labour
REPUBLIC OF SOUTH AFRICA

Distribution of marks: (previous examination in brackets)

%	Number of candidates
0 – 9	**7** (0)
10 – 19	**17** (14)
20 – 29	**46** (38)
30 – 39	**70** (58)
40 – 49	**64** (51)
50 – 59	**44** (29)
60 – 69	**31** (11)
70 –79	**12** (7)
80 – 89	**1** (0)
90 – 100	**0** (0)
Candidates	**292 (208)**

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1.

PART I – STASTISTICS

Date of exam	Candidates enrolled	Candidates wrote exam	Successes	Percentage passes
Nov 2022	**448**	**300**	**110**	**36,7**
June 2022	371	247	10	4
Nov 2021	479	321	82	25,5
June 2021	462	318	75	23,6
Nov 2020	545	349	133	38,1
June 2020	Examination was cancelled due to Covid-19 pandemic			
Nov 2019	469	309	55	17,8%
June 2019	492	313	104	33,2
Nov 2018	507	378	141	37,3%
June 2018	487	335	105	31,3%
Nov 2017	401	303	48	15,8%
June 2017	414	286	109	38,1%
Nov 2016	381	295	63	21,4%
June 2016	429	296	81	27,4%
Nov 2015	352	307	46	14,9%
June 2015	428	336	109	32,4%
Nov 2014	437	345	48	13,9%
June 2014	529	365	107	29,3%

Distribution of marks: (previous examination in brackets)

%	Number of candidates
0 – 9	**1** (6)
10 – 19	**16** (35)
20 – 29	**34** (91)
30 – 39	**64** (76)
40 – 49	**75** (29)
50 – 59	**58** (10)
60 – 69	**38** (0)
70 –79	**11** (0)
80 – 89	**3** (0)
90 – 100	**0** (0)

Statistics

Certificates issued after June 2022 examinations

- Electrical Engineer's = 13
- Mechanical Engineer's = 15

Total to date

- Electrical Engineer's = 3961
- Mechanical = 4953

Thank you