# AMEU Strategic Adviser's Presentation

## Virtual AMEU KZN Branch Meeting

## 2 October 2020


Presentation by

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**AMEU Strategic Adviser**


**20 August 2020**

# SALGA FEEDBACK

1. **There is a discussion paper on Reform that has been developed to kick-start the reform agenda**. This process is underway let by DMRE and Cogta, politically led by Deputy Minister of COGTA. The discussion paper once final, will be presented to the politicians for way forward
2. **SALGA Committee on TID Rollover – On Monday 05 October 2020, the TORs for the committee will serve at the SALGA EXCO for approval**. Once that is done, the committee will start sitting. ToRs were circulated to all municipalities and affected stakeholders for comments, which was closed on 18 September 2020.
3. **A workshop on Cost of Supply is planned to hosted by SALGA and NERSA, to unpack the COS Framework**. The workshop will be open to all municipalities and Eskom, it is planned to be on 15 October 2020 online. Invitations will be sent our shortly.
4. **A workshop was held with NERSA in September on updated and reviewed NMD Rules, this documents will be undergoing NERSA** decision making processes shortly, it will still be sent out for public comments.

# DMRE – RMIPP EMERG PROC OF ELECTRICITY

## Objectives of the RMIPP Programme

To procure 2 000 MW of capacity, on a Least Cost and Least Regret basis, using various technology solutions identified in table 5 of the Integrated Resource Plan for Electricity 2019 (IRP 2019).

## RFP Situational Analysis

- South Africa is currently facing a power crisis and expeditious procurement of energy into the national grid is critical to maintain security of supply.
- The IRP 2019 indicates a short-term electricity supply gap of approximately 2 000 MW between 2019 and 2022.
- Various views on the size of the gap - CSIR indicated that this gap is up to 5 000 MW, Eskom stated its own requirements of a 4000 MW of short to medium term supply gap and there are views in the market of a much larger gap.
- The RMIPP Procurement Programme is FIRSTLY a direct response and aim to fill the supply gap, alleviate the current electricity supply constraints and reduce the extensive utilisation of diesel-based peaking electrical generators in the medium to long term

# DMRE – MINISTERIAL DETERMINATION GAZETTE 1015

1. Eskom designated to be off taker for the 11873 MW of power through various technologies
2. **Municipalities NOT designated as an off-taker**
3. The DMRE Minister based this decision on the NERSA Concurrence of the Ministers Determination which indicates INTER ALIA the following:

"**5.7.8** NERSA also notes and supports the notions shared regarding the decision on who the buyer should be, which must be taken while considering the upcoming changes in the electricity sector, the unbundling of Eskom and well as New Generation Regulations amendments. However, given that neither of these processes have been finalised, it is **NERSA's position that for this allocation, Eskom should remain the buyer.** In the determinations that will follow after the implementation of the IRP 2019, **and once the New Generation Regulations have been amended, municipalities can take part in establishing New Generation within their municipalities. "**

**"5.7.9.** Once the unbundling of Eskom has been completed and all decisions regarding the role of the System Operator and the appropriate placing of the mandate to buy power for the system has been outlined, future determinations will take this into account as well."

# NERSA LIST OF MUNICIPALITIES WITH APPROVED SMALL-SCALE-EMBEDDED-GENERATION ("SSEG") TARIFFS AS OF 2 SEPTEMBER 2020

1. Beaufort West
2. Bitou
3. Breede Valley
4. Cape Agulhas
5. Cederberg
6. **City of Cape Town**
7. City of Mbombela
8. **City of Tshwane**
9. **City Power JHB**
10. Drakenstein
11. Emalahleni MP
12. Ephraim Mogale
13. **eThekwini Metro**
14. George
15. Govan Mbeki
16. Hessequa
17. Kai !Garieb
18. Knysna
19. Langeberg
20. Matzikama
21. **Buffalo City**
22. Mossel Bay
23. **Nelson Mandela Bay Metro**
24. Oudtshoorn
25. Saldanha Bay
26. Sol Plaatjie
27. Stellenbosch
28. Swartland
29. Theewaterskloof

# Bottlenecks/issues inhibiting the roll-out of RE in terms of IRP2019

1. The absence of **market rules and contracting clarity** with respect to RE rollout or deployment

2. **The absence of Integrated planning with RE as a defined component of the municipal energy portfolio** - every municipality needs an integrated energy master plan for inter alia the optimal procurement and integration of generation of RE that will result in a least cost approach and ensure the synergistic implementation of same in coordination with national level plans like the **IRP2019**.

3. The complex and debilitating National Treasury and municipal approval procedures and mechanisms for prudent investment in RE initiatives and projects; financial constraints by government, Eskom and municipalities, including the absence of government guarantees; the challenge of a single buyer model with a probably already technically insolvent off-taker (Eskom) and the need for a state owned **Independent Transmission System and Market Operator ("ITSMO")** and a diversified, competitive generation sector.

# Suggestions to address the bottlenecks/burning issues as identified(1)

1. Broadly speaking the centuries old current municipal energy commodity (**"kWh") business model together with the associated funding model** is also for all intents and purposes **"dead" and obsolete models respectively & needs urgent "revamping**" to facilitate the quick and easy ingress of cost effective RE onto a municipal grid – the possible migration to inter alia an **energy services business model ( with an appropriate organisational structure)** should be explored

2. **Consider a national municipal RE framework** wherein the rollout of RE is aggressively pursued and incentivised as an integral part of the municipal energy portfolio **- both from a supply ('front of the meter") & demand ("behind the meter") perspectives**

3. **Municipalities must find ways to improve their energy business sustainability to play a leading role in driving the energy market reform** - do not leave this to Eskom or "other" parties to resolve. In general, inter alia current rooftop and energy storage options must be further leveraged in its energy mix options. Municipalities must also have access to other alternatives **e.g. PPA's with IPP's and wheeling arrangements** to enhance their business sustainability and linked to the market reform requirement or imperative.

***** To successfully achieve all of the above suggestions it is paramount and imperative that government creates an ideal and conducive environment and/or platform*****

# PROPOSED AMEU GUIDELINES – ELECT SUPPLY BYE LAWS

1. Last guideline in our records goes back many years
2. Currently I understand that the CoCTN electricity bye laws is being utilised
3. We as AMEU aim to come up with with a revised set of elctricicty bye laws given the significant change in inter alia the electricity supply landscape in SA

# KEY FOCUS AREAS

- **NMD Rules**

  The Rules submitted to the subcommittee meeting to be held on 6 October for request stakeholders to comment.

- **Cost of supply studies**

  NERSA participating in the workshops arranged by SALGA to assist with the development of cost of supply studies.

- **SSEG Tariffs**

  Tariffs for Municipalities were approved at a special meeting after approval of the normal approval process.

- **Draft rules on table awaiting approval for consultation**

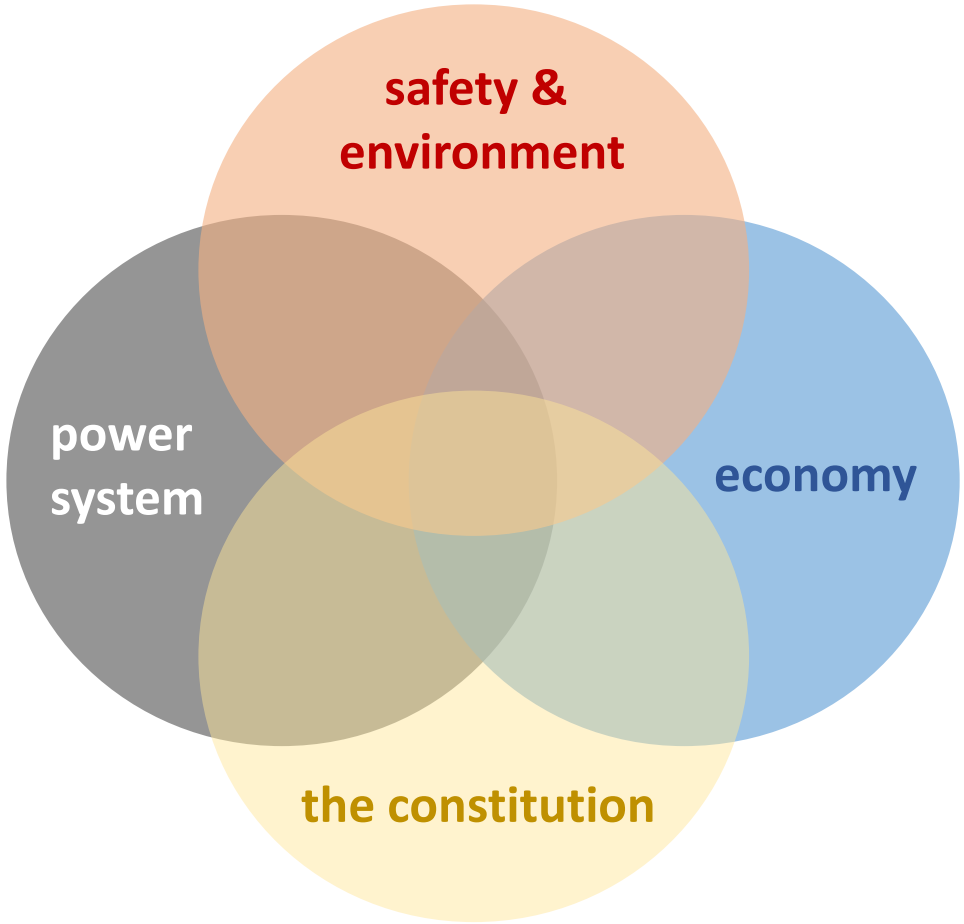
  SSEG Rules

  Reseller Rules

# NRS 048-9 Ed.3 (Review of Ed.2) -The task

Simplify editorial

- **Critical loads:** *schools, hospitals, telecoms, sewage*
- **Essential load requirements**: *verification*




- **Constraint type**: *capacity/energy*
- **Constraint**: *extended (maintenance)*

- **Blackout prevention:** *response*
- **Blackout recovery***: restoration*

- **The future power system**: *embedded generation, wheeling*

- **Predictability:** *warning, planned reduction*
- **Transparency**: *outlook*

- **Schedules**: *2-4hr, staggered*
- **Curtailment***: stage %, base, execution (24hr, accounting for maintenance)*

- **Equity:** economics / system limitations
- **Exemptions***: deep level mines*
- **Non-payment**: *municipal, feeder level*

- **COVID-19:** *economic recovery*

- **Philosophy***: DR, synch maintenance*

- **Electricity Regulation Act:** *Grid Code, equity*
- **Disaster Management Act**: *(> Stage 3 risk reduction, COVID-19)*
- **Stakeholder engagement***: NERSA process*

# STSA MATTERS

## PROPOSED FORMATION OF THE INDUSTRY COMMITTEE BY SALGA ON TOKEN IDENTIFIER (TID) ROLLOVER EVENT BY 2024

### 1. OBJECTIVES

- There is a pending business risk to the prepayment metering industry globally that requires urgent action to circumvent it. In this respect, SALGA would like to form an Industry Committee to:
- Ensure Municipalities' readiness to deal and mitigate this particular business risk by 2024.
- Provide technical/advisory service and support to the municipalities in addressing this risk by 2024

### 2. BACKGROUND

- On 24 November 2024 all prepayment meters based on Standard Transfer Specification (STS) technology will stop dispensing electricity, thus presenting a significant risk to the service levels, sales and revenue collection of all municipalities to end user customers in the electricity, water and gas utilities business.

## NEW STSA Board MEMBER

**AMEU President Elect, Ms Jayshree PERSHAD** from eThekwini Metro was appointed by the AMEU EXCO to represent the AMEU on the STSA Board. We wish Ms Pershad all the best.

# DHS Urban Settlements Development Grant allocation to electricity for 2020/21

| | | | |
|---|---|---|---|
| 1. | BCCM | – | R 17 000 000 |
| 2. | Cape Town | - | R 22 943 450 |
| 3. | NMBM | - | R 41 260 285 |
| 4. | eThekwini | - | R 276 956 000 |
| 5. | CoJ | - | R 98 377 |
| 6. | Tshwane | - | R 244 934 945 |
| 7. | Ekurhuleni | - | R 230 000 000 |
| 8. | Manguang | - | R 52 069 978 |
| | **TOTAL** | **=** | **R 885 263 035** |

# DMRE REVISED INEP BUDGET – FY 2020/2021

## 2020/21 DMRE BUDGET REDUCTION FOR INEP

**2020/21 FINANCIAL YEAR**

| Programme | Main Appropriation ('000') | % Reduction | Proposed reduction ('000') | Final Allocation ('000') |
|---|---|---|---|---|
| INEP-Munics | R1 858 752 | 26.9% | R500 000 | **R1 358 752** |
| INEP-Eskom | R3 001 483 | 33.32% | R1 000 000 | **R2 001 483** |
| INEP-Non Grid | R220 160 | 0% | R0 | **R220 160** |
| **Total** | **R5 080 395** | | **R1 500 000** | **R3 580 395** |

# Regulations on Carbon Offsets

**Regulations on Carbon Offsets under section 19 of the Carbon Tax Act, No 15 of 2019**

1. The Regulations further provide an offset mechanism that may be utilised to develop carbon offsets projects to enable reduction in respect of carbon tax liability.
2. The Department of Mineral Resources and Energy (DMRE) as the administrator of the Carbon Offset Administrator hereby activates the Carbon Offset Administration System (COAS) to be live as of **23 July 2020**.
3. The DMRE invites all the relevant participants as outlined by the Carbon Offsets Regulations to **register on the system** to enable the submission of project applications for further processing.

# Weekly Generation Availability

| | Week | | | | | | | | | | | | | | Annual (Jan - Dec) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | YTD | 2019 |
| Energy Availability Factor (Eskom EAF) | 70.00 | 70.50 | 66.16 | 69.35 | 70.34 | 69.97 | 67.72 | 63.80 | 65.56 | 67.20 | 64.14 | 64.36 | 65.49 | 67.24 | **66.06** | **66.93** |
| Planned Outage Factor | 5.76 | 7.08 | 6.98 | 7.31 | 7.59 | 7.59 | 10.68 | 11.87 | 10.36 | 12.49 | 12.01 | 13.92 | 14.12 | 15.68 | **9.61** | **9.94** |
| Unplanned Outage Factor | 20.29 | 18.54 | 22.41 | 19.07 | 18.05 | 18.13 | 17.21 | 20.29 | 20.62 | 16.74 | 21.14 | 19.65 | 18.55 | 15.65 | **21.52** | **21.57** |
| Other Outage Factor | 3.95 | 3.88 | 4.45 | 4.27 | 4.02 | 4.31 | 4.39 | 4.04 | 3.46 | 3.57 | 2.71 | 2.07 | 1.84 | 1.43 | **2.81** | **1.56** |

- **EAF:** Ratio of the available energy generation over a given time period to the maximum amount of energy which could be produced over the same time period.
- **Outage Factors:** Ratio of the energy losses over a given time period to the maximum amount of energy which could be produced over the same time period.
- **YTD:** Year-to-Date (01 January of current year to current week)

# Three Month Outlook

| Week Start | Week | MW RSA Contracted Forecast | MW Residual Forecast | MW Available Dispatchable Capacity | MW Available Capacity (Less OR and UA) | MW Planned Maintenance | MW Unplanned Outage Assumption (UA) | MW Planned Risk Level (-14200 MW) | MW Likely Risk Senario (-16200 MW) |
|---|---|---|---|---|---|---|---|---|---|
| 28-Sep-20 | 40 | 31629 | 29886 | 41550 | 27350 | 6881 | 12000 | | |
| 05-Oct-20 | 41 | 31166 | 30078 | 41625 | 27425 | 6806 | 12000 | | |
| 12-Oct-20 | 42 | 30460 | 29131 | 41156 | 26956 | 7275 | 12000 | | |
| 19-Oct-20 | 43 | 30558 | 29265 | 42463 | 28263 | 5968 | 12000 | | |
| 26-Oct-20 | 44 | 30221 | 28927 | 41823 | 27623 | 6608 | 12000 | | |
| 02-Nov-20 | 45 | 30093 | 28549 | 42074 | 27874 | 6357 | 12000 | | |
| 09-Nov-20 | 46 | 30024 | 28479 | 41804 | 27604 | 6627 | 12000 | | |
| 16-Nov-20 | 47 | 30001 | 28456 | 41804 | 27604 | 6627 | 12000 | | |
| 23-Nov-20 | 48 | 29955 | 28411 | 41994 | 27794 | 6437 | 12000 | | |
| 30-Nov-20 | 49 | 29934 | 28324 | 41994 | 27794 | 6437 | 12000 | | |
| 07-Dec-20 | 50 | 29829 | 28115 | 41674 | 27474 | 6757 | 12000 | | |
| 14-Dec-20 | 51 | 29576 | 27862 | 42249 | 28049 | 6182 | 12000 | | |
| 21-Dec-20 | 52 | 28238 | 26524 | 41801 | 27601 | 6630 | 12000 | | |
| 28-Dec-20 | 53 | 27532 | 25346 | 41787 | 27587 | 6644 | 12000 | | |

- The maintenance plan included in these assumptions includes a base scenario of outages (planned risk level). As there is opportunity for further outages, these will be included. This “likely risk scenario” includes an additional 2000 MW of outages on the base plan.
- The expected import at Apollo is included. Avon and Dedisa is also included.
- The forecast used is the latest operational weekly residual peak forecast, which excludes the expected renewable generation.
- Operating Reserve (OR) from Generation: **2 200 MW**
- Unplanned Outage Assumption (UA): **12 000 MW**
- Reserves: OR + UA = **14 200 MW**
- Eskom Installed Capacity: **47 426 MW** (Incl. non-comm. Kusile units)
- Installed Dispatchable Capacity: **48 431 MW** (Incl. Avon and Dedisa)

| Risk Level | Description |
|---|---|
| Green | Adequate Generation to meet Demand and Reserves. |
| Yellow | < 1 000MW Possibly short to meet Reserves |
| Orange | 1 001MW – 2 000MW Definitively short to meet Reserves and possibly Demand |
| Red | > 2 001MW Short to meet Demand and Reserves |

# Renewable Energy Statistics

| Maximum Contribution (MW) - based on System Operator data (subject to metering verification) | | | | | |
|---|---|---|---|---|---|
| Cal Year | Indicator | CSP | PV | Wind (Eskom+IPP) | Total (Incl other REs) |
| All Time | Maximum | 503.7 | 1,684.0 | 1,904.3 | 3,812.3 |
| | Max Date | 22-Sep-2020 15:00 | 27-Sep-2020 11:00 | 25-May-2020 13:00 | 13-Sep-2020 12:00 |
| 2016 | Maximum | 200.9 | 1,350.5 | 1,229.8 | 2,576.3 |
| | Max Date | 11-Aug-2016 14:00 | 16-Dec-2016 12:00 | 23-Dec-2016 13:00 | 23-Dec-2016 13:00 |
| 2017 | Maximum | 302.0 | 1,432.5 | 1,708.2 | 3,142.7 |
| | Max Date | 07-Nov-2017 10:00 | 27-Oct-2017 12:00 | 25-Dec-2017 18:00 | 13-Dec-2017 13:00 |
| 2018 | Maximum | 399.7 | 1,392.1 | 1,902.3 | 3,298.9 |
| | Max Date | 04-Dec-2018 16:00 | 03-Oct-2018 12:00 | 02-Oct-2018 16:00 | 28-Sep-2018 11:00 |
| 2019 | Maximum | 502.1 | 1,375.6 | 1,872.0 | 3,530.6 |
| | Max Date | 24-Sep-2019 11:00 | 19-Jan-2019 12:00 | 14-Dec-2019 15:00 | 27-Oct-2019 13:00 |
| 2020 | Maximum | 503.7 | 1,684.0 | 1,904.3 | 3,812.3 |
| | Max Date | 22-Sep-2020 15:00 | 27-Sep-2020 11:00 | 25-May-2020 13:00 | 13-Sep-2020 12:00 |

| Maximum Difference between Consecutive Evening Peaks (MW) - based on System Operator data (subject to metering verification) | | |
|---|---|---|
| Cal Year | Indicator | Total (Incl other REs) |
| All Time | Maximum | 1,487 |
| | Max Date | 31-Aug-2020 to 01-Sep-2020 |
| 2016 | Maximum | 828 |
| | Max Date | 30-Aug-2016 to 31-Aug-2016 |
| 2017 | Maximum | 1,038 |
| | Max Date | 19-Jun-2017 to 20-Jun-2017 |
| 2018 | Maximum | 1,336 |
| | Max Date | 01-Sep-2018 to 02-Sep-2018 |
| 2019 | Maximum | 1,464 |
| | Max Date | 05-Jul-2019 to 06-Jul-2019 |
| 2020 | Maximum | 1,487 |
| | Max Date | 31-Aug-2020 to 01-Sep-2020 |

| Annual Energy Contribution (MWh) - based on System Operator data (subject to metering verification) | | | | | |
|---|---|---|---|---|---|
| Cal Year | Indicator | CSP | PV | Wind (Eskom+IPP) | Total (Incl other REs) |
| All Time Maximum | Annual Energy | 1,557,151 | 3,324,989 | 6,624,642 | 11,586,945 |
| 2016 | Total Energy | 529,522 | 2,630,141 | 3,730,771 | 6,951,261 |
| 2017 | Total Energy | 687,703 | 3,324,857 | 5,081,023 | 9,198,632 |
| 2018 | Total Energy | 1,031,288 | 3,282,124 | 6,467,095 | 10,887,902 |
| 2019 | Total Energy | 1,557,151 | 3,324,989 | 6,624,642 | 11,586,945 |
| 2020 | Total Energy | 1,081,558 | 2,780,249 | 4,716,061 | 8,640,022 |

Note: Times are expressed as hour beginning

| Current Installed Capacity (MW) | |
|---|---|
| CSP | 500.0 |
| PV | 1,957.1 |
| Wind (Eskom+IPP) | 2,111.7 |
| Total (Incl other REs) | 4,590.5 |

# Virtual meetings /Webinars

**SUCCESSFUL VIRTUAL MEETINGS/WEBINARS HOSTED SINCE LOCKDOWN:**

1. Impact of Covid pandemic on service delivery
2. DMRE-DHS-AMEU Metro Forum
3. PIESA Utility Management webinar (11 separate sessions)
4. Virtual AMEU Highveld Branch Meeting
5. Virtual AMEU Goodhope Branch Meeting
6. Virtual AMEU Cluster Committee meetings
7. Virtual AMEU Panel Discussion on Zero-Based-Budgeting
8. Number of bilateral and multilateral virtual meetings with SALGA, NT, GIZ, DMRE,MISA etc

**FORTHCOMING VIRTUAL MEETINGS/WEBINARS TO BE HOSTED TILL END DEC 2020**

1. KZN (Oct 2020) and Eastern Cape (Dec 2020) Branch meetings
2. AMEU and ESKOM Dx leadership meeting
3. DHS-DMRE-AMEU electrification projects rollout meeting
4. DMRE NEAC meeting
5. NT/DMRE/SALGA/AMEU EDI restructuring panel discussion
6. Various bilateral and multilateral meetings with various stakeholders (similar to above)

# Thank you