

# WESTERN CAPE PROVINCIAL PARLIAMENT



## AD HOC COMMITTEE ON ENERGY CRISIS

REPORT OF THE AD HOC COMMITTEE ON ENERGY CRISIS ON  
ITS OVERSIGHT UNDERTAKEN DURING THE PERIOD 28 APRIL  
2023 TO 7 FEBRUARY 2024

AS AT 17 APRIL 2024

**Report 1/ 2024: Report 2024**

**Report of the Ad Hoc Committee on Energy Crisis, to conduct oversight over the work of the provincial executive as it responds to the impact of the national energy crisis on the Western Cape, including oversight over any part of the provincial executive, any provincial department, any provincial organ of state and any provincial entity involved in activities dealing with energy security, on the themes/meetings covered from April 2023 to February 2024, as follows:**

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## **1. Purpose of the Report**

The purpose of this report is to report to the House, in compliance with Standing Rule 89(1), on the oversight work of the *Ad hoc* Committee on Energy Crisis (the Committee) as assigned to it in terms of Standing Rule 120 and as required of it at its establishment (ATC 10 March 2023 No. 24/2023).

This report includes the establishment of the *Ad hoc* Committee, the details of the exercising of *Ad hoc* Committee's mandate, public participation, recommendations and committee decisions between April 2023 and February 2024.

## **2. Establishment of the Committee**

The Ad Hoc Committee on Energy Crisis (the Committee) was established by the Speaker of the Western Cape Provincial Parliament (WCPP) on 23 March 2023 in accordance with Standing Rule 120(1)(b) of the Standing Rules of Western Cape Provincial Parliament, ATC 10 March 2023 No. 24/2023.

The Committee was tasked with the responsibility to conduct oversight over the work of the provincial executive as it responds to the impact of the national energy crisis on the Western Cape, including oversight over any part of the provincial executive, any provincial department, any provincial organ of state and any provincial entity involved in activities dealing with energy security.

After consulting all seven (7) political parties represented in the Western Cape Provincial Parliament and all input considered, it has been resolved that the Committee shall consist of fifteen (15) Members, as follows:

### **Members**

- Democratic Alliance: Eight (8) Members: Honourable C Murray, Honourable C Fry, Honourable D America, Honourable I Sileku, Honourable A P van der Westhuizen; Honourable W F Kaizer-Philander; Honourable L M Maseko and Honourable G Pretorius. Alternates: Honourable D Plato, Honourable Baartman and Honourable G Bosman.
- African National Congress: Two (2) Members: Honourable N D Nkondlo and Honourable C M Dugmore.
- Economic Freedom Fighters: One (1) Member: Honourable A Cassiem.
- GOOD: One (1) Member: Honourable S N August.
- African Christian Democratic Party: One (1) Member: Honourable F C Christians.
- Freedom Front Plus: One (1) Member: Honourable P J Marais.
- Al Jama-ah: One (1) Member: Honourable K Brinkhuis.

On 15 March 2023 (ATC No. 29/2023) the Committee membership was amended to include a change in Membership of the Democratic Alliance as follows:

- Democratic Alliance: Honourable W F Kaizer-Philander to be replaced with Honourable D Baartman.

**Procedural Staff:**

- Ms L Cloete, Senior Procedural Officer
- Ms M Mrubata, Committee Assistant
- Mr M Sassman, Manager: Committee Support

The Committee had all the general powers conferred upon committees in accordance with the Standing Rules (Rule 91), as well as any other power, where applicable, conferred upon committees generally in accordance with the Standing Rules (Rules 77–95).

The Committee resolved on 4 April 2023 to choose the default option to meet virtually via MS Teams and therefore the general Rules of Engagement during virtual meetings were followed. All meetings of the Committee have been held virtually.

**2.1 Election of Chairperson**

On 16 March 2023, Member C Fry (DA) was elected by the Committee to serve as the Chairperson of the Committee in accordance with Standing Rules 82(1) and 85. This was published in the ATC of 23 March 2023 No. 31/2023.

**2.2 Themes of Engagement**

On 4 April 2023, the Committee met to plan the way forward for the work of this Committee in conducting its oversight work over government responses to the Energy Crisis in the Province.

The Chairperson outlined the vision for the Committee to function and its objectives and further proposed that the Committee focus on two (2) aspects of the Energy Resilience Programme which is the (i) operational execution; and (ii) the financial management aspect which details the financial plan for the Energy Resilience Programme. To this end, the Committee resolved to invite all stakeholders for engagement and commenced with a briefing from the provincial government on the plans to make the Western Cape load shedding-free.

The Committee agreed to approach the work of this Committee to address the Energy Crisis in the Province as follows:

1. Engaging with the Premier of the Western Cape and the Special Advisor to the Premier, Mr Alwie Lester, to get an update on the current status of the Energy Crisis in the Western Cape.
2. Engaging with the Acting CEO of ESKOM, Mr C Cassim, on the Energy Crisis in South Africa and its effect on the Western Cape.
3. Engagement with the Minister of Electricity on the current status of the Energy Crisis in South Africa and its effect on the Western Cape.
4. Engagement with the provincial Department of Health on the state of readiness in being equipped with sufficient supply of backup generators for hospitals during loadshedding amidst the energy crisis.

5. Engagement with SALGA to outline the plans SALGA have in place to empower municipalities to mitigate loadshedding.
6. A series of engagements with Local and District Municipalities on the project plans for the 2023/24 Energy Infrastructure Allocations including the Emergency Funding allocated to assist municipalities.
7. Engagement with Professor Janet Cherry, Professor of Developmental Studies at the Nelson Mandela University on Nelson Mandela Bay Community Co-operative and its efforts in energy cooperatives and community collaborations.

### **2.3 Rules of Engagement**

#### **Rules of Engagement during virtual meetings were indicated as follows:**

1. All meetings would be open to members of the public and media via livestreaming.
2. All Members microphones must be muted at the beginning of the meeting to avoid background noise.
3. Members are to flag Points of Order in the Chat Function of Microsoft Teams (the application through which virtual meetings are held);
4. All videos and audio must be switched off to improve the quality of the connection; however, if a Member/Minister/HOD/Mayor/Deputy Mayor/Municipal Manager is speaking, they may put on their audio and video.
5. Participants must switch off their microphones once they are finished speaking.
6. Section 10 of the Directives ATC'd on 17 April 2020 speaks to the application of Standing Rules. Section 10 states that "in instances where these directives are not clear or do not cover a particular eventuality in respect of sittings of the House or meetings of the committees by means of videoconferencing, the Standing Rules must apply as far as this is reasonably and practically possible and, in instances where they cannot be applied, the ruling by the presiding officer must be final".

### **3. Context of the Energy Crisis in the Western Cape**

Provincial government in the Western Cape has committed R1,9 billion over the Medium-Term Expenditure Framework (MTEF) to reduce the impact of loadshedding, boost the green economy and to set up a strong pipeline of green energy projects, scale up support to municipalities to help them get more power into the grid and identify critical transmission infrastructure upgrades. The Premier, Mr Alan Winde, in his first engagement with the Committee outlined the Provincial Governments Energy Plan and the Energy and Resilience programme to respond to the current energy crisis in the province.

R88,5 million was allocated to municipalities in the form of emergency funding towards the purchase and installation of back-up energy supply which may include generators, renewable power sources, batteries and all ancillary costs associated with the installation such as switch gear, safe keeping caging for water and wastewater infrastructure. The funding will be allocated to the 24 local municipalities and the five (5) district municipalities to keep providing basic services such as potable water and hygienic and

environmentally safe sewage. Transfer payment agreements with municipalities are in place to perform the necessary governance and oversight arrangements.

Mr Alwie Lester, Special Advisor to the Premier, outlined the objectives of the Western Cape Government Energy Resilience Plan which is to reduce the impact of blackouts on businesses and citizens and to facilitate a lower reliance on Eskom through short-, medium – and long-term measures.

The Committee resolved to take a multi-sectoral stakeholder approach and invite governmental, non-governmental, national, provincial, and local entities as part of the discussions to address the energy crisis. The Committee therefore invited the Premier, the Special Advisor on Energy to the Premier, and the National Minister of Electricity, to outline the provincial and national plans to address the energy crisis. The Committee furthermore engaged with the Acting CEO of Eskom to provide the Committee with an update on the status of the Energy Crisis in the Western Cape and a Professor in Developmental Studies, Professor Janet Cherry, from Nelson Mandela University to learn more on community collaborations and energy cooperatives in efforts to address the energy crisis.

#### **4. Engagement with Western Cape Government**

##### **4.1 28 April 2023: Energy Crisis - Situational Report: Briefing by Western Cape Premier and Special Advisor to the Premier on the current status of the Energy Crisis in the Province and plans to mitigate loadshedding.**

- 4.1.1 The Western Cape Government (WCG) established an Energy Resilience Programme which aims to reduce the impact of loadshedding on businesses and citizens in the Western Cape.
- 4.1.2 R1.1 billion has been set aside over the MTEF to increase the efforts to formulate energy security plans, address the energy response in the province as well as facilitate a lower reliance on Eskom in the Western Cape.
- 4.1.3 An Energy Council has been established and is chaired by the Premier. The purpose of the council is to direct and oversee the implementation of the WCGs urgent action to relieve both the immediate impacts of load shedding and its medium to long term energy strategy.
- 4.1.4 The Energy Council Steercom will be unblocking any departmental issues and facilitating capacity where needed, and as a “caucus” in order for all Heads of Departments to be aligned as best as possible before a Western Cape Energy Council meeting happens which is chaired by the Director General.
- 4.1.5 The Energy Resource Team are officials working on the various energy workstreams which can be part-time or full-time members and this group is chaired by the Core Energy Team.
- 4.1.6 A “Whole of government” approach is needed to achieve the objectives of the Western Cape Energy Resilience Programme and these strategic objectives aims to reduce the impact of loadshedding on businesses and citizens in the Western Cape.
- 4.1.7 The WCGs R1.1 billion investment over the next three (3) years will be complemented with a further R3.9 billion investment by the City of Cape Town and a further investment of R1.9 billion over the three (3) years by the remaining municipalities.
- 4.1.8 The Premier informed the Committee that discussions and consultation with various stakeholders are still underway with regards to the procurement and distribution on the



rollout of the Emergency Energy Packs. Co-funding of this programme is being sought from the City of Cape Town, certain municipalities, and the private sector to enable packs to be distributed to more homes.

- 4.1.9 It was indicated that the province would be able to go off the grid by 2025, concerns were then raised on whether the province had enough supply to meet demand and whether a plan of action was in place to prevent a total blackout, if required.
- 4.1.10 Concerns were raised that the finances of provinces had been impacted and the province had to implement mitigation policies to address loading shedding at their own cost. Provinces also received funding from conditional grants as per the Division of Revenue Act and the equitable share, but no grants had been provided to mitigate the effects of loadshedding. To this end, the Committee asked whether the Minister of Electricity had been urged to support as national government, and if not, when would the Minister be approached.
- 4.1.11 The Committee raised concerns regarding the estimated cost per unit to the consumers since some metros like the City of Cape Town and others had levied a surcharge on electricity purchases and whether this was a standard practice authorised by the National Energy Regulator of South Africa (NERSA).
- 4.1.12 Since the DORA made certain grants available for energy efficiency and an integrated electricity grant would this be used to address the energy crisis in the province.
- 4.1.13 The Committee highlighted the need for the urgent requirement of battery capacity in the province and alerted the Department to the three (3) Eskom battery storage facilities in the Western Cape situated in Vredendal, the Breede Valley and Cederberg.

**4.2 11 August 2023: Briefing by the Provincial Minister of Health & Wellness and the Head of the Western Cape Department of Health & Wellness on the state of readiness in being equipped with sufficient supply of backup generators for hospitals during loadshedding amidst the energy crisis.**

- 4.2.1 The Head of Department, Dr Keith Cloete, informed the Committee on the way the energy crisis impairs the capacity to provide health services in the province and that electricity is required for medical equipment, computers and digital records, telecommunications and call centres, cold storage, safety and security systems, fire alarm systems, access control systems, lighting, and thermal comfort.
- 4.2.2 Ten (10) hospitals are exempted from load shedding up to Stage 6 and these are as follows:
  - (i) George Hospital
  - (ii) Groote Schuur Hospital
  - (iii) Karl Bremer Hospital
  - (iv) Mitchells Plain Hospital
  - (v) Mowbray Maternity Hospital
  - (vi) New Somerset Hospital
  - (vii) Red Cross Hospital
  - (viii) Tygerberg Hospital
  - (ix) Victoria Hospital; and
  - (x) Wesfleur Hospital.
- 4.2.3 The Department is currently in discussion with Eskom for the installation of a dedicated feeder for the Khayelitsha Hospital and is awaiting the final quote for installation of this feeder and installation will be done by October or November 2023.

- 4.2.4 Generators were made available for essential power supply in 193 facilities which included all hospitals, Community Health Centres (CHCs), large Community Day Centres (CDCs), Observatory Forensic Pathology, and the Tygerberg Forensic Pathology.
- 4.2.5 The Department indicated that due to the limited financial and human resources they could not afford the installation and operation of standby generators in 278 of its facilities. The Department uses Uninterruptible Power Supply (UPS) backup systems for its life support medical equipment, operating theatres, Emergency Medical Services (EMS) call centres, and ITC equipment.
- 4.2.6 The Department implemented a new policy which states that no surgical procedures may be commenced with in operational theatres when electricity was running on a generator. This policy was implemented to avoid putting people's lives at risk since no back up electricity was available if the generators failed.
- 4.2.7 The costs from 1 April 2023 to 30 June 2023 for generator operational implications including diesel availability totalled R12 million. More frequent breakdowns, planned maintenance challenges due to load shedding, shortened life span of generators before requiring replacement, longer lead time for repairs due to limited availability of parts in the country, escalated cost of the repairs, rearrangement of maintenance team priorities, and a limitation in the health services provided impacted on surgical services.
- 4.2.8 The Department has two (2) maintenance contracts in place to support generator operations during loadshedding and to support the maintenance of generators.
- 4.2.9 The Department installed smart meters at 68 hospitals and large Primary Health Care (PHC) facilities to measure energy consumption. The cost per kilowatt hour (kWh) for electricity produced by diesel generators was four times the cost of electricity supplied by Eskom.
- 4.2.10 An Energy Huddle was established during the COVID-19 pandemic and the met three (3) times a week with technical staff and operational managers. This body focused on problem solving, risk identification, risk mitigation and dashboard monitoring.
- 4.2.11 The Department planned to roll out its rural clinic inverter programme in two (2) phases. During the 2023/24 financial year the Department planned to roll out Phase One of its inverter programme in 51 clinics with a budget of R37 million. In the 2024/25 financial year, Phase Two will be rolled out to 87 clinics with an allocated budget of R47 million. Currently, as per Phase One, inverter systems had been installed in nine (9) clinics with 42 clinics in the planning and costing stages. Clinics have been supplied with inverters and lithium batteries to provide essential power supply during load shedding.
- 4.2.12 The Department of Health and Wellness is moving towards a globally green and healthy hospitals; therefore, the focus was on electricity as an emergency response. The supply of backup generators for hospitals is part of the Western Cape Climate Change Response Strategy (WCCCRS): Vision 2050.
- 4.2.13 The Committee commended the Department for its innovations and steps taken to minimise the maximum electricity demand and in so doing employing cost containment measures as well which benefits not only Eskom but the citizens of South Africa. The Department was commended as well on its state of readiness in delivering its services and addressing energy shortages caused by loadshedding.
- 4.2.14 The Department is considering all possible alternative renewable energy sources like wind/solar farms and biomass energy.

4.2.15 The Department requested assistance from the Committee to request additional resources and to engage with National Treasury on the Departments behalf since no additional funding was received to address loadshedding.

4.2.16 The Committee expressed its concern that the severe effects of loadshedding on health facilities should be reported and the report should include all operational risks of loadshedding such as the staff that needs to work during blackouts and that the medical equipment are dependent on the supply of electricity. Special mention should be made that due to loadshedding the Department of Health and Wellness had to incur additional costs which would affect the budget allocated to the Department.

**4.3 2 August 2023: Briefing by the Department of Local Government the guidance provided to municipalities on projected plans for the 2023/24 Energy Infrastructure allocations including the Emergency funding allocated to assist municipalities.**

4.3.1 The Department of Local Government (DLG) reported that it received R88, 815 million to support municipalities to acquire generators based on the guidance of the engineers in the Department.

4.3.2 The following ten (10) municipalities have spent 100% of their allocation to procure the required generators:

- Matzikama
- Saldanha Bay
- West Coast
- Drakenstein
- Breede Valley
- Theewaterskloof
- Cape Agulhas
- Kannaland
- Bitou
- Beaufort West

4.3.3 Seven (7) municipalities have awarded their tenders and awaited delivery, four (4) municipalities are still in the Supply Chain Management (SCM) process, while the rest of the municipalities concluded their SCM processes and are in various stages of implementation.

4.3.4 The Department of Local Government is the leading Department in the four (4) projects implemented to support municipalities. The other three (3) Departments are Infrastructure, Environmental Affairs and Development Planning and Economic Development and Tourism.

4.3.5 The four (4) projects to support municipalities are (i) the Electricity Master Plans; (ii) the Solar PV to pilot renewable energy solutions; (iii) Dedicated Engineering capacity; and (iv) Supporting generators.

4.3.6 The Provincial Strategy adopted will address demand management, supply management and management strategies.

4.3.7 The Department provided technical assistance to municipalities in deploying engineers to some municipalities on a semi-permanent basis and based on requests for support. Engineers were employed to undertake an assessment on municipalities that might need assistance and help with the impact of loadshedding.

- 4.3.8 All municipalities have complied with the help of DLG engineers, the generic or technical scope of works for the acquisition of generators.
- 4.3.9 The funding to municipalities will be transferred with conditions and managed between the DLG and the respective municipality with a signed Transfer Payment Agreement (TPA). The municipality receiving the funding will be responsible for the establishment, installation, testing, operations and diesel of the generators.
- 4.3.10 The Department is supporting municipalities with its respective Electricity Master Plans, planning for electricity infrastructure, potential growth in the area and the current/ potential need to ensure that the areas have sufficient supply.
- 4.3.11 A pilot project of the Solar Photovoltaic (PV) cell systems with a battery energy storage system is currently running in the Department. Certain municipalities have been endorsed to be part of the rollout of this project namely, Hessequa, Swartland, Cape Agulhas, Swellendam and Prince Albert.
- 4.3.12 The Department is also assisting municipalities with the Environmental Impact Assessment (EIA) process and will appoint Project Managers to assist with this project. In addition, the Department will appoint Chief Electrical Engineers, Engineers and Technicians to be available for the province and municipalities.
- 4.3.13 The Municipal Energy Planning programme has been rolled out according to the structured plan since 2015 and it's been implemented recently by the Municipal Energy Resilience (MER) Programme.
- 4.3.14 Concerns were raised that municipalities are under-resourced with experts in technical matters and whether the support to municipalities to source the expertise or skills for the energy team and the transaction advisors is in place.
- 4.3.15 The Committee raised concern whether the six (6) municipalities and the DLG will establish a relationship with the business hubs to see if bigger businesses are able to assist smaller businesses who cannot afford to rely on alternative energy resources.
- 4.3.16 The Committee recommends that the Department consider making use of shale gas in the respective areas such as the Karoo and as is currently being used in Mossel Bay to generate electricity.

## **5. Engagement with the Minister of Electricity**

### **17 November 2023: Briefing by the Minister of Electricity on the current status of the Energy Crisis in South Africa and its effect on the Western Cape.**

- 5.1 Minister Ramokgopa informed the Committee of the impact of loadshedding on the economy. Loadshedding and the high input costs such as electricity and fuel costs continues to erode company profitability, compromising jobs, it has a spillover effect on tax collection and service delivery capacities.
- 5.2 Loadshedding exerts a statistically significant negative impact on the total real Gross Domestic Product (GDP) growth which reflects an estimate of between R204 million and R899 million daily. The most affected sectors are agriculture, forestry and fishing, manufacturing, mining and transport as well as storage and communication.
- 5.3 The Energy Action Plan (EAP) has five (5) priority outcomes as follows:
  - (i) Fix Eskom and improve the availability of existing supply;

- (ii) Enable private investment in new generation capacity;
  - (iii) Accelerate procurement of new capacity from renewables, gas, and battery storage;
  - (iv) Unleash investment in rooftop solar PV for business and households; and
  - (v) Transform the electricity sector to achieve energy security.
- 5.4 An update was provided on the power stations, and the Kusile Power station remains on a critical path to restoring the supply-demand base.
- 5.5 Concerns were raised by the Committee that Koeberg Power station was still out of commission.
- 5.6 The Integrated Resource Plan (IRP) 2023 addressed issues related to the energy mix comprehensively, referring to the anticipated demand and identified the generation sources. This included the cost of fuel sources and arrived at an energy mix. Coal, nuclear and gas were going to be part of the mix. The exact proportions would be decided through public consultation, therefore nuclear, gas, and coal were a big part of the energy mix in South Africa, as it is across the globe.
- 5.7 The Embedded Generation Task Team supports over 100 projects to clear regulatory hurdles and to enter construction to accelerate energy projects.
- 5.8 Load reduction interventions includes the upscaling of rooftop solar PVs for residential and commercial use and to increase the replacement of electric geysers with solar water heaters in residential households through partnering with the insurance industry and banks. Government interventions focuses on solar panel tax incentives and the Energy Bounce-Back Loan Scheme. The areas of development are manufacturing capacity to meet the demand for solar energy generation and storage components and an anticipated increase in the demand for solar installation capacity.
- 5.9 The Distribution Industry Reform focused on global trends disrupting the Electronic Data Interchange (EDI), supporting investment in private generation with the focus on Net billing, feed-in tariffs, and wheeling. Key challenges facing the distribution industry in South Africa which includes systemic challenges, future revenue which depends on policy and funding solutions for transitioning as well as a case for change in re-imagining the distribution industry which is critical to energy security.
- 5.10 The Transmission Industry Reform provides the transmission landscape which highlights seven (7) grids covering nine (9) provinces. The transmission infrastructure is concentrated in the inland provinces which is Gauteng, Limpopo, and Mpumalanga. The planned infrastructure requirements require a 325% increase in transmission infrastructure in the next ten (10) years.
- 5.11 The impact of energy infrastructure in driving growth can be realised in South Africa's transmission infrastructure development plan. This plan includes four (4) stages which is (i) facilitating renewable energy deployment, (ii) attracting investments and business growth, (iii) job creation and economic opportunities; and (iv) technological advancements and innovation.

## 6. Engagement with Eskom

### **24 May 2023: Briefing by the Acting Chief Executive Officer of Eskom on the current status of the Energy Crisis in South Africa and its effect on the Western Cape**

- 6.1 Eskom indicated that despite several positive developments to address Eskom's challenges, loadshedding has intensified with a devastating impact on the economy of South Africa. Eskom however remains committed to increase the amount of available generation, with a specific focus over the winter period, by reducing unplanned losses in the generation fleet, managing planned maintenance to the minimum level of maintenance required over winter and increasing diesel burn at the Open Cycle Gas Turbines (OCGT).
- 6.2 Eskom is driving the Generation Operational Recovery Programme with the support of its Board to sustainably recover the performance of the plants over the next 24 months.
- 6.3 Positive developments include the establishment of the National Energy Crisis Committee (NECOM), the Energy Action Plan (EAP) and the appointment of the Minister of Electricity. The establishment of the independent advisory panel to assess the impact of the Minimum Emission Standards (MES) or air quality challenges and consideration of mitigations to security of supply and the exemption for Kusile as a temporary solution.
- 6.4 Eskom's financial challenges are met with NERSA's determination with National Treasury debt relief solution which is a positive development towards a sustainable ESI.
- 6.5 Load shedding is implemented to maintain the stability of the national power system. Schedules are available up to Stage 8 load shedding so that it can be implemented in a controlled way to ensure that the required operating reserves are maintained. Beyond stage 8 the system operator will determine the amount of megawatt to be reduced per area.
- 6.6 With the increase of loadshedding there is a controlled reduction of electricity demand to match supply, a schedule ahead of time, sequenced for specific areas and a proactively managed system through a well-established process from the national control. In terms of a national blackout, there is an uncontrolled loss of energy in the entire power system, multiple systems would have to fail at the same time for a black out to occur and this generally, occurs as a result of cascading tripping of critical transmission lines, possibly caused by significant weather events (tornadoes, storms). Eskom informed the Committee that loadshedding does not increase the risk of a national blackout, loadshedding is implemented to prevent a national blackout.
- 6.7 Multiple levers are being implemented to reduce the level of loadshedding such as the reducing of unplanned losses, manage planned maintenance, increase diesel generators utilization, and drive Demand Side Management (DSM).
- 6.8 Eskom updated the Committee on the units that had long term outage and their return dates. Four (4) Kusile units and Koeberg unit 1 will be returned by the end of 2023. Due to the delays being experienced in replacing the steam generators at Koeberg Unit 1, the commercial operation date is forecast to be September 2023. Kusile Units 1,2 and 3 will be operational by the end of December 2023 with the temporary stack, but environmental exemption is required to operate at full capacity, Kusile Unit 5 will be synchronised to the grid by November 2023 and will provide 720MW, Medupi Unit 4 will be operational in July 2024 with the second-hand stator and the new stator will be operational in October 2025.

6.9 The Generation Operational Recovery Programme is being implemented to sustainably recover the performance of the plants. Several enablers are being implemented to ensure that the Generation Recovery Programme is successful.

## **7. Engagement with South African Local Government Association (SALGA)**

### **14 June 2023: Briefing with SALGA on the plans in place to empower municipalities to mitigate loadshedding.**

- 7.1 SALGA acknowledges the challenges faced by the country due to loadshedding is because of failing generation infrastructure and lack of maintenance to Eskom's generation fleet. Loadshedding is further incentivising paying customers to seek alternative options for their energy needs. This is evidenced by the speed at which larger energy users are going off-grid. The result is declining revenue from electricity sales.
- 7.2 Loadshedding has had a negative impact on the country and municipalities, not only in terms of revenue, but also in terms of additional expenditure, damage and vandalism to infrastructure, theft of electricity, over-time etc.
- 7.3 The impact of loadshedding on municipal infrastructure and finances involves the theft and vandalism of electrical and water infrastructure. There are financial implications for the replacement and repair of infrastructure, the budget is affected with the payment of staff overtime and contractors during loadshedding and massive revenue losses and unserved energy.
- 7.4 The costs to replace or repair damaged (due to excessive switching), vandalised or stolen electricity distribution network equipment across the 89 municipalities amounted to R1 602 300 000 in this financial year. The estimated cost across all licensed municipal distributors for replacing and repairing the infrastructure is more than R3 billion. Municipalities are incurring an annual average of R1 107 583 200 on staff overtime and contractors during loadshedding.
- 7.5 Municipalities are spending at least R480 287 756 on procurement of back-up generator sets and R482 517 300 per annum on fuel for generators during loadshedding.
- 7.6 The impact of loadshedding on the economy causes businesses to lose revenue, jobs are being lost, businesses need to close and others relocate, businesses and households struggle to pay the municipal accounts, there is a high usage of diesel generators resulting in air and noise pollution, there is high operating costs that makes businesses unprofitable resulting in the reduced cashflows for the municipality, an increase in criminal activities are reported during the long hours of loadshedding, damage to electrical equipment and stock inventory are experienced and traffic congestion due to traffic lights not working during loadshedding.
- 7.7 The implications on municipal viability and sustainability includes the loss of revenue (unserved energy), loss of infrastructure, more expenditure on vandalised, damaged and stolen infrastructure, increased unemployment and poverty, the inability for customers to pay the municipal taxes and rates and an increased number of indigents.
- 7.8 Further potential revenue losses will be experienced if prepayment meters are not reset.
- 7.9 The plans to mitigate loadshedding are as follows:
  - (i) To identify areas of support including accessing National Disaster resources through Regulation 4(e), government has withdrawn the state of disaster, thus, no framework against which applications for financial and other assistance can be made in terms of costs and damage incurred related to loadshedding.

- (ii) That SALGA lobby provincial COGTA for support to municipalities (funding, technical assistance and skills development).
- (iii) That NECOM workstream 9: Distribution-safety and security sub-workstream to assist in preventing vandalism of infrastructure.
- (iv) Investments in utilising the available infrastructure in municipalities to address the energy crisis.
- (v) The Aggressive rollout of alternative energy solutions for municipal strategic infrastructure such as Water Treatment Works, Pumps, Sewer, traffic lights and public lighting for public safety.
- (vi) Aggressive national investments in municipalities to assist municipalities review their current business models from electricity retailer to fully fledged energy services providers.
- (vii) Repurpose unused conditional grants to be channelled to energy solutions in municipalities.
- (viii) Support municipalities in the procurement of energy from other suppliers (e.g. provide backing of government for strong balance sheet and guarantees).
- (ix) National Investments in enabling municipalities to build, own and operate their own generation infrastructure.
- (x) Invest in Demand Side Management, especially in municipal properties and facilities than asking industry to use less energy.
- (xi) Review INEP and EEDSM to align to prevailing developments in the sector.
- (xii) Provide support to municipalities in negotiating energy wheeling arrangements.
- (xiii) Special grants to install energy packages to the settlements where non-payment and non-technical losses are high (or INEP can be repurposed for that).
- (xiv) Rollout of battery energy storage systems in municipal networks (can solve NMD issues).
- (xv) Assist municipalities with funded plans to reduce stages of loadshedding in their jurisdictions to procure utility scale generation (e.g. Cape Town and Ethekewini strategies).
- (xvi) Assist municipalities with JET infrastructure plans to access the climate financing package.
- (xvii) National consolidated effort to improving security of critical energy infrastructure.
- (xviii) Impress upon the regulator to develop a national framework for trading platform of small-scale embedded generation as well as Wheeling.
- (xix) Support provided in assisting municipalities to generate power using water reservoirs, waste to energy, and wastewater treatment plants.



**8. 14 June 2023: Briefing with the City of Cape Town on the plans in place to mitigate loadshedding.**

- 8.1 The City of Cape Town (CoCT) has a vision to become a climate-resilient, resource-efficient carbon-neutral city that enables inclusive economic development, and healthy thriving communities and ecosystems. This includes a target of becoming carbon neutral and climate resilient by 2050. The CoCT, therefore, aims to be a leader in renewable energy and alternative technology solutions through facilitation, promotion, demonstration, and connecting with businesses and citizens to find innovative solutions to address the energy challenges.
- 8.2 Councillor van Reenen stated that the energy crisis was primarily due to a shortfall of energy capacity, breakdown of the ageing infrastructure of the power stations, and the lack of adequate investments into new energy projects. Maintenance failures and allegations of sabotage were contributing to the crisis.
- 8.3 The CoCT has a programme with the plan to add up to 1GW of independent power supply to end load shedding in the city over time with the first 650MW to be produced within five (5) years. This goal aims to be sufficient to provide protection against four (4) stages of Eskom load shedding by 2026. The plan includes embedded IPP renewable energy capacity of 200MW, dispatchable energy with capacity up to 500MW, wheeling up to 50MW, city-owned Small-Scale Embedded Generations (SSEGs) adding 20MW, and IPPs contributing 100MW.
- 8.4 Optimising the Steenbras Pumped Storage Plant is the single biggest load shedding mitigation lever available in the short-term. The plant continues to deliver and allows to mitigate up to two stages of load shedding. In order to maximise the value of the plant, it needs to be refurbished within the next couple of years.
- 8.5 The loadshedding mitigation fundamentals is that Eskom's technical performance is not going to improve in the short or medium term. Short time measures includes an embedded Independent Power Producer (IPP) programme, targeting capacity of 200MW of mainly renewable energy, through the appointment of multiple IPPs, a Dispatchable IPP programme involving battery storage and gas-to-power technologies with a capacity of 480MW and a minimum capacity on a shorter term contract, a Demand Response programme or Power Heroes is based on incentivising residents to save energy voluntarily to protect CoCT supplied customers from loadshedding. The aim is to reduce demand by up to 60MW, Atlantis Solar PV facility, connecting 7MW directly to the CoCT's network, Paardevlei Solar PV facility with the potential to deliver between 40 and 60MW Solar PV, a Battery Energy Storage System (BESS), aiming to add dispatchability of CoCT energy supply, a Wheeling Research Project, i.e. a proposed total of 355MW to be wheeled, and Small-scale Embedded Generation, aiming to develop a streamlined online application portal to simplify the registration process for customers.

**9. Engagement with municipalities on the projected plans for the 2023/24 Energy Infrastructure allocations including the Emergency funding allocated to assist municipalities:**

**9.1 2 August 2023: West Coast District Municipality, Swartland Municipality, Matzikama Municipality, Cederberg Municipality, Bergrivier Municipality and Saldanha Bay Municipality**

- 9.1.1 The **West Coast District Municipality** received a R1.9 million allocation for the procurement of generators. The municipality procured two generators from their own funding and the allocation of DLG.
- 9.1.2 Saldanha Bay municipality assisted with 450-kilowatt generators during high loadshedding periods.
- 9.1.3 The West Coast DM has two (2) generators permanently working in Withoogte. The intent of the Withoogte solar energy project is to have a 1.2 Megawatt (MW) solar plant. Phase 1 will generate 161-kilowatt power with their own funding and started in June 2023. Phase 2 will have the generation of 338-kilowatt power with battery backup solutions, which will cost R14 million through own funding and partnerships and will take place in December 2023. Phase 3 will be 851-kilowatt power with battery backup solutions which will cost R18 million and will take place in April 2024.
- 9.1.4 The Committee encouraged the involvement of local businesses and community participation in cooperatives in the generation of power and that a cost benefit analysis be done with standard schools that are equipped with solar power.
- 9.1.5 The **Swartland Municipality** received R10 945 000 for the installation of backup generators at four (4) critical bulk pump stations, two (2) critical wastewater stations and two (2) critical sewer pump stations from the DLG. The budget was however amended and the council approved the amended budget of R3,7 million to include the new power generation projects.
- 9.1.6 Tenders were invited for the SCM process, and this closed on 30 April 2023. The tenders were awarded on 18 May with a 35-week contract period for the supply and installation of the generators, the enclosure and security measures and the upgrading of the pump starters and the switchgear. The municipality submitted a rollover application and expenditure to date has been R2.351 723.
- 9.1.7 Swartland Municipality is in the process of doing an EIA of the land and the land use application for the Solar PV project.
- 9.1.8 The municipality has implemented a small-scale embedded generation within the municipality. The council has approved the amendment of the electricity by-law which makes provision for small-scale generation, and it encourages customers to register existing and new systems that they want to put up in the municipality.
- 9.1.9 **Matzikama Municipality** received R1.05 million from DLG and used their own funding of R756 000 and the total cost for the project was R1.8 million.
- 9.1.10 Matzikama Municipality was able to procure five (5) high-power generators in the area. One generator supplies two pumping stations in Vredendal. The other sites include the Ebenezer freshwater treatment plant, the Lutzville freshwater treatment plant and the Canal pump station. The Canal pump station still needs to be delivered.
- 9.1.11 The municipality applied to Eskom to be excluded from loadshedding, but it was denied on five occasions, after the sixth application however it was approved.

- 9.1.12 Projects planned for the 2023/24 financial year is generator procurement for the Klawer freshwater treatment works and the Vanrhynsdorp and Vredendal North wastewater treatment works.
- 9.1.13 **Cederberg Municipality** received R1.6 million for emergency funding from the Western Cape Government for seven (7) generators.
- 9.1.14 The municipality highlighted the challenges faced in the Cederberg area related to energy such as ageing electricity infrastructure, electricity supply capacity and network capability constraints due to increasing population and new developments, lack of supply capacity in Clanwilliam, hampering growth in the town, maintaining quality of supply and quality of services to all electricity customers, electricity grid readiness for renewable energy penetration, funding for large network upgrading and system betterment projects including loadshedding.
- 9.1.15 The municipality has spent nearly R1 million, of their own funds to procure three (3) stand-by generators to supplement the seven (7) generators procured with emergency funding. In procuring the additional generators continuous supply of business services to the communities will be upheld.
- 9.1.16 A request for rollover of funds were submitted to Provincial Treasury and as soon as the approval is granted the tender will be awarded for the purchasing of seven (7) generators and the delivery and installation of the generators will be managed as a high priority project.
- 9.1.17 Generators will be installed in Citrusdal Wastewater Treatment Works, Citrusdal Boreholes, Clanwilliam Water Pumpstation, Milner Street Sewerage Pumpstation in Clanwilliam and Graafwater Water Works.
- 9.1.18 Other major electricity related projects in the Cederberg Municipality are the Clanwilliam 66/11kV Substation, the Graafwater and Paleisheuwel Battery Energy Storage System (BESS) and a Request for Proposal (RFP) for renewable energy.
- 9.1.19 The Small-Scale Embedded Generation (SSEG) and Solar PV policies are being implemented on the demand side. Cederberg municipality is currently in negotiations with the National Department of Water and Sanitation about hydroelectricity generation as part of the Clanwilliam Dam Wall Project.
- 9.1.20 Other factors impacting the energy security is the floods experienced in these areas. Many communities were severely affected by the floods, making the towns inaccessible. The electrical infrastructure was destroyed and some totally washed away.
- 9.1.21 **Bergvrievier Municipality** received R3.6 million as an Emergency Loadshedding Relief Grant. The municipality spent R2 693 206,00 of this allocation on two (2) generators at the Piketberg water treatment works and the boost pump station for water security in Piketberg. R898 337,00 will be used to procure a generator for the Dwarskersbos booster pump station, this process is currently at the tender evaluation stage.
- 9.1.22 The municipality developed a loadshedding plan which had its last review in June 2023. The intention of the loadshedding plan was to address and guide responses to anticipated scenarios that might arise from persistent levels of loadshedding.
- 9.1.23 The 2023/24 projects for Bergvrievier Municipality plan to use R2.3 million to operate fixed and mobile generators and R500 000 will be allocated to the security of assets.
- 9.1.24 **Saldanha Bay Municipality** received R2.95 million for the Municipal Emergency Loadshedding Relief Grant which was used to purchase two 275 kW generators and two 110

kW generators. These have already been delivered and two of which have already been installed.

- 9.1.25 Saldanha Bay is part of the Provincial Municipal Energy Resilience (MER) workgroup where it received R689 000 for the Electricity Master Plan which has been completed and will be tabled to Council in September 2023.
- 9.1.26 Solar and wind power projects have been approved and the solar project will be run to assist ArcelorMittal with the 1500 MW approved gas-to-power EIA. The municipality feels that Saldanha Bay is perfectly situated for gas and therefore this will become the base load for energy and make it the standard going forward.
- 9.1.27 The Council has approved the creation of a position for an Engineer of Sustainable energy and Generation, and they are currently busy with this job design. The municipality has requested the assistance of a Transaction Advisor from the Department of Infrastructure.
- 9.1.28 The Energy Generation Plan tender has been completed and is being vetted by attorneys. The municipality is also in the process of identifying land parcels and preparation readiness for the Solar PV project.
- 9.1.29 The municipality requested the Energy Constraint report from Eskom since this constraint report will be beneficial in determining how much energy can be generated in Saldanha Bay and how big the generation plant should be for it to be wheeled over Eskom's line. The municipality is however still awaiting this report from Eskom.

## 9.2 **16 August and 30 August 2023: Cape Winelands Districts Municipality, Witzenberg Municipality, Drakenstein Municipality, Stellenbosch Municipality, Breede Valley Municipality, Langeberg Municipality**

- 9.2.1 **Cape Winelands District Municipality** received a grant of R950 000 which the municipality had received to supplement electricity supply in the municipality. The municipality advertised an initial tender on 5 May 2023 for the supply and delivery of two back-up mobile generators. The tender was however re-advertised on 14 July 2023 due to non-responsive bids. The bid evaluation process is scheduled to be concluded before 30 September 2023.
- 9.2.2 The municipality submitted a rollover application to Provincial Treasury which was approved. The generators that will be procured will be used within the Cape Winelands District Municipal area as needed, as well as at the Disaster Management Centre.
- 9.2.3 Concerns were raised on the percentage of municipal revenue that is generated from the sale of electricity in relation to the annual budget and if the NERSA-determined rate has been implemented by the municipality.
- 9.2.4 **Witzenberg Municipality** received an Emergency Municipal Loadshedding Relief grant of R450 000 for the supply and servicing of emergency backup generators. The municipality advertised the tender to appoint service providers to supply and service emergency backup generators from 19 April 2023 to 08 May 2023, the municipality however did not receive any bids from any service providers.
- 9.2.5 The municipality followed a deviation process with the approval of the Municipal Manager which differed from the normal tender process, but the preferred service provider could not provide tax clearance documentation which made the service provider not tax compliant. The municipality then followed a SCM process to start procuring generators.

- 9.2.6 The municipality applied for a rollover of funds from Provincial Treasury to be used in the next financial year to procure additional generators to continue rendering critical services during loadshedding.
- 9.2.7 The Committee raised concerns with the deviation process taken by the municipality and the reason for not receiving bids initially as when the tender was advertised.
- 9.2.8 **Drakenstein Municipality** received R6 million from the Emergency Municipal Loadshedding Relief grant and installed two generators at the Paarl Wastewater Treatment Works (WWTW), one generator at the Conrad water pump station and one generator at the Perold water pump station. The municipality however used an additional R6 million to acquire additional generators which they set aside to be used in the 2023/24 financial year.
- 9.2.9 The focus of the municipality was on sustainable service delivery in reducing the risk of failure to ensure that basic services are equipped and running with generators for water and sewer pumpstations and wastewater treatment works. Also ensuring that generators, solar panels and inverters were installed at municipal offices and service desks.
- 9.2.10 Uninterrupted Power Supply (UPS) back-up systems were installed at all major traffic lights and the municipality needed to have additional diesel budget for generators. 37 of the 47 main arterial traffic lights has the installed UPS back up through an underground system. The underground smart system cannot be interfered with or vandalised because they were programmed to alert the municipality and law enforcement through the municipality if they were tampered with. The rest of the back-up system installations will be done by the end of 2023.
- 9.2.11 The municipality purchased generators for the Paarl Civic Centre, the Paarl-East office and an additional generator will be procured for the Market Street Engineering Services Management building and Mbekweni satellite offices. The municipality converted its old generators into mobile units. One of these converted generators are used at the Paarl WWTW.
- 9.2.12 The Drakenstein municipality received 161 registrations for Small-Scale Embedded Generation (SSEG), solar panels and inverter units mostly from affluent areas.
- 9.2.13 Concerns were raised about the long-term solutions to address the energy crisis and not only short-term solutions since generators uses diesel which may become expensive. Drakenstein municipality may have to consider other options such as solar energy.
- 9.2.14 **Stellenbosch** Municipality received an Emergency Municipal Loadshedding Relief grant of R6.175 million and went out on a tender for backup generators for key water pump stations in high-lying areas to fill reservoirs during extended loadshedding periods. The municipality only received two (2) bids and both bids received failed to meet the pre-qualification criteria and the bid was cancelled.
- 9.2.15 Due to the financial year end looming the municipality decided to proceed with a deviation process to conclude the process before end of financial year, but the Bid Adjudication Committee (BAC) did not approve the deviation due to the legal inconsistencies of the bidder. The municipality consequently had to undergo another full tender process and therefore requested for rollover of funds from the Department of Local Government. The next procurement process will end on 21 August 2023.
- 9.2.16 The possibility of using solar backup systems is being investigated and the critical treatment plants have backup generators. The municipality installed rooftop photovoltaic at four (4) municipal buildings as part of its alternative Energy Strategy.

- 9.2.17 The municipality is investigating a number of initiatives to reduce the impact of loadshedding which includes the successful appointment of a Lead Consulting Project Management Firm and an in-house project manager to investigate various aspects of loadshedding mitigation.
- 9.2.18 Stellenbosch Municipality is part of the Western Cape Government Municipal Energy Resilience project and the municipal pool buying initiative. There is currently an analysis being done on; and preparation of a Request for Proposals for alternative energy Independent Power Producers (IPPs).
- 9.2.19 **Breede Valley Municipality** received an allocation of R950 000 for the 2022/23 financial year from the Energy Relief Fund even though the financial requirements of the municipality exceeded this allocation. The municipality procured two (2) generators with the allocated funds.
- 9.2.20 The municipality started with the installation of generators at critical service delivery points. The municipality requires an additional R3.8 million to permanently install a generator in the administrative office since the requirement will be to re-route the current electricity supply and allow diesel cabling and a generator building.
- 9.2.21 Concerns were raised for the protection of municipal assets such as generators. The Committee noted that some generators such as the ones in Zwelethemba and Noble Park Sewer Pump Station were not covered with any roofing or a protective structure.
- 9.2.22 The Committee raised a further concern regarding the long-term energy need of the municipality and whether a plan or way forward on this is contained in the Energy Master Plan, in addition the strategy against water leaks was questioned and the way in which the municipality will address water leaks in households.
- 9.2.23 **Langeberg Municipality** received an allocation of R350 000 Emergency Municipal Loadshedding Relief grant even though the municipality required R5 million for its energy needs. The municipality did not receive any funds from the Energy Infrastructure allocation and therefore used its own funding. The municipality budgeted for the energy infrastructure, R2 million for 2022/23, R9 million for 2023/24 and R9.5 million for 2024/25, which would be primarily used for water and sewer systems.
- 9.2.24 The municipality received three (3) generators, two were supplied by Tiger Brands in Ashton and installed at the Ashton water pump station and wastewater treatment plant. Lactalis (Parmalat) supplied one generator and it was installed at the wastewater treatment plant. The supply of these generators to the municipality was beneficial for the municipality and both Tiger Brands and Lactalis since they, as companies had water requirements as well.
- 9.2.25 The municipality requested co-funding from the Western Cape Government to install solar PVs at municipal facilities.
- 9.2.26 In terms of Small-Scale Embedded Generation (SSEG) applications, the municipality requires customers to make SSEG applications before procuring any equipment. The applications would then be authorised and a letter would be issued, authorising the installation of the equipment. The SSEG regulations and application form are available on the municipality's website.

### 9.3 30 August 2023: Overberg District Municipality, Theewaterskloof Municipality, Overstrand Municipality, Cape Agulhas Municipality, Swellendam Municipality

- 9.3.1 **Overberg District Municipality** received R1.6 million as per its submitted business plan to address the energy crisis. Three (3) mobile 100 KVA generators were acquired for use within the district area as required for emergencies. The trailer-mounted generators will be used in depots in Swellendam and Caledon and also serve as backup generators to current depots as well as primarily to assist local municipalities in the district who encounter emergencies requiring extra capacity.
- 9.3.2 The Transfer Payment Agreement (TPA) was signed and the approval for the use of the rollover of unspent funds as at the 30<sup>th</sup> of June 2023 were granted on 17 August 2023.
- 9.3.3 **Theewaterskloof Municipality** received R1.8 million in Emergency Loadshedding Relief grant funding that was used to procure generators and vandal-proof cages for the generators. The municipality listed the 14 essential infrastructure locations equipped with generators across the Theewaterskloof municipality to guarantee service delivery.
- 9.3.4 The municipality highlighted anticipated risks and challenges which includes possible procurement delays due to availability of generators, the security at all premises to safeguard generators, capacity constraints such as budgeting for additional resources and maintenance and repairs delays due to lack of competency on specific items.
- 9.3.5 Mitigation actions are considered such as outright procurement of generators to contractors with minimum lead-time, to mitigate security through a security tender which is ongoing, a ring-fenced budget for the upgrade of security and resources before the end of the 2023/24 financial year and to secure a service provider for maintenance and repairs to minimise downtime.
- 9.3.6 **Overstrand Municipality** received an emergency loadshedding relief grant of R6.7 million for the procurement and installation of additional back-up generators at critical water and wastewater facilities to mitigate the impact of loadshedding on the provision of basic services. The municipality received additional electrical grant allocations from the National Department of Mineral Resources and Energy for the Integrated National Electrification Programme (INEP) for the electrification of government subsidised housing projects to the amount of R24 380 000 as well as the Energy Efficiency and Demand Side Management (EEDSM) Grant to replace old streetlight fitting with energy efficient LED lights to the amount of R4 200 000.
- 9.3.7 The municipality in 2016, initiated a Small-scale Embedded Generation (SSEG) programme which allows SSEG customers to sell energy back to the municipality when they have surplus energy.
- 9.3.8 The municipality listed the scope of work in providing either generators or mobile generators to certain areas in the Overstrand and the progress to date in providing generators to areas such as Gansbaai, Hermanus Mossel River Sewerage Pump Stations, etc. The generators for the Gansbaai Wastewater Treatment Works, Kleinmond Palmiet Raw Water Booster Pump Station and Kraaibosch Dam Raw Water Pump Station must still be supplied.
- 9.3.9 The **Cape Agulhas Municipality** received an allocation of R3 million during the adjustment budget cycle to procure generators to replace the costly rental fleet. The province provided an additional R350 000 as part of the Emergency Funding to contribute towards the purchase

of a generator. The National Department of Mineral Resources and Energy allocated R11 million to the municipality to enable the replacement of streetlights with LED-type lights.

- 9.3.10 The municipality reported that during December 2020, the peak holiday season for the region, the levels of loadshedding drastically increased to Stage 6 and this led to critical water shortages in the Struisbaai area.
- 9.3.11 The municipality managed to mitigate the risk of loadshedding in the 2022/23 holiday season as a result of the installation of the generator fleet and rental of units at all essential water and sewer installations.
- 9.3.12 The municipality had to consider mitigation measures for the challenges faced with loadshedding such as optimizing and analysing internal energy usage for both electrical and fossil fuel, procure a standby power plant for essential installations, optimize the technology used in streetlighting, motor control centre technology and building energy usage.
- 9.3.13 The municipality is participating actively in the province's containerised solar PV battery storage system and feels strongly that the Province roll out of the Containerised solar PV battery solution as a priority, the municipality has provided sample Terms of Reference documents for reference.
- 9.3.14 **Swellendam Municipality received** R1.3 million for the purchase of a stand-by generator, but in terms of the needs analysis, further funding was needed for a bigger generator to carry the Wastewater Treatment Works (WWTW) in Swellendam.
- 9.3.15 The new strategic vision of the municipality is to enable renewable energy and a green economy, gain more independence from Eskom, support local economic investment and growth for jobs and to ensure the economic sustainability of the municipality.
- 9.3.16 A renewable energy project will provide protection for the Wastewater Treatment Works in Swellendam to be connected to the electricity feeder in the industrial area.
- 9.3.17 The energy crisis had significant effects on the financial sustainability of the municipality, which includes reduced consumption of electricity affecting the units sold and effectively minimises the revenue margins, electricity used as a credit control measure becomes insufficient as residents purchase less electricity less frequently and move to alternative energy solutions, reduced sales margins will result in tariff increases above the approved NERSA guidelines, unemployment will increase, and more residents won't be able to afford to pay their municipal bills, which will significantly reduce the municipality's cash position. The municipality will not be able to meet the minimum liquidity requirements, barely pay its creditors on time and not be able to sustain its capital investment programme, which is already under pressure and the municipality has a small revenue base of 11 464 households and cannot absorb the projected cash losses.

#### 9.4 **13 September 2023: Central Karoo District Municipality, Laingsburg Municipality, Prince Albert Municipality, Beaufort West Municipality**

- 9.4.1 The **Central Karoo District Municipality** received a grant of R350 000 to procure a roaming generator for the Central Karoo District to move between the local municipalities as required.
- 9.4.2 All tenders received for the generator was above the R350 000 grant and the Central Karoo District Municipality did not have additional funding and the tender was adjudicated to be re-advertised. The municipality applied for the funding to be rolled over.



- 9.4.3 The municipality currently has a 5 KVA hybrid inverter system only and it is used to run its server and internet. The inverter is sufficient to run the electricity for the entire municipal building. The cost for the hybrid system was R149 990.99.
- 9.4.4 The district municipality proposed future solutions such as running a hybrid system for the entire administrative block which includes the Central Karoo District Municipality Administration block and the Central Karoo DM Council offices and chambers and that inverters, solar panels and a battery stem should be considered to be installed.
- 9.4.5 The municipality in future wants to go off the Eskom grid to ease the burden of loadshedding for Beaufort West and proposes that inverters, solar panels, and a specific battery system should be used as alternate systems.
- 9.4.6 **Laingsburg Municipality** received R60 000 as a conditional grant for the procurement of a 20kVA generator. The municipality was unable to find a generator under R130 000. The smaller generators are not able to backup critical water pumps in the Laingsburg region. The municipality is not a beneficiary of any energy infrastructure allocations.
- 9.4.7 The municipality can also not benefit from the social funding available in the municipal area due to the Renewable Independent Power Producer Programme (REIPPP) not allowing municipalities to be funded. The municipality has submitted a top-up funding request and is awaiting confirmation of the funding request.
- 9.4.8 The impact of the crisis on the municipality caused that there is an increase in spend on fuel for the backup generators to keep basic services running such as water supply and purification, sanitation reticulation and the main administrative office. The municipality has lost revenue in the form of reduction of profit margin on energy sales, the ability to cross subsidise for roads, landfill sites and other non-revenue generating services, increase on non-revenue service demand due to big construction projects in the municipal area, loss of customers due to alternative energy being cheaper and the loss of bulk customers due to finding alternative energy sources to maintain operations.
- 9.4.9 **Prince Albert Municipality** received R175 000 to fund the procurement of a standby generator to ensure power supply to critical infrastructure installations. The funding was insufficient, and the municipality had to re-advertise the bid. The allocations were based on prioritised critical infrastructure installations identified by the respective municipalities, verified, and further prioritized by the Department of Local Government.
- 9.4.10 The municipality identified challenges which includes the issue of pricing where the demand on generators has resulted in price escalation, remote areas are at a disadvantage in terms of getting able suppliers, the budget allocation is not aligned with the market price of goods and there is a delay in SCM processes. The proposed solutions posed by the municipality is to test the market price before the budget is allocated, when allocating the budget the geographic areas must be considered, and the term “tender” should be considered in line with Treasury Regulations.
- 9.4.11 A project for containerised PV Battery Storage is currently under consideration for the municipality by the Department of Local Government. This will assist the municipality in reducing loadshedding for up to four (4) hours per day and eliminate the dependence on the Eskom grid. This project requires the municipality to avail 18.5 hectares of land with fencing and security. The municipality is however still awaiting feedback from the Department of Local Government to determine if the project will be implemented in the Prince Albert area.

- 9.4.12 **Beaufort West Municipality** applied for funding from the Emergency Loadshedding Grant and received R1 115 000 for the purpose of equipping two clean water pumpstations with generators in Merweville and Murraysburg. The municipality co-funded this project to the value of R142 870 and it was successfully completed in June 2023.
- 9.4.13 The projects implemented during the 2022/23 financial year to reduce the effect of loadshedding on water supply includes upgrading and equipping boreholes in Merweville as well as augmentation of the bulk water supply to Murraysburg.
- 9.4.14 The Energy Infrastructure project plans for the 2023/24 financial year is to equip the municipal building with the necessary solar battery system to reduce electricity consumption in municipal buildings and to reduce the effect of loadshedding on service delivery. In addition, the municipality plans to equip boreholes in Beaufort West with solar panels to reduce the effect of loadshedding on the water supply to Beaufort West. No funding has been allocated for both these projects. Lastly, a 20 MVA Solar Plan needs to be constructed to supply Beaufort West with electricity. Discussions are currently underway with the Department of Mineral Resources and Energy and an international funder.

**9.5 27 September and 17 November 2023: Garden Route District Municipality, Kannaland Municipality, Hessequa Municipality, Mossel Bay Municipality, George Municipality, Oudtshoorn Municipality, Bitou Municipality and Knysna Municipality**

- 9.5.1 The **Garden Route District Municipality** received R1,5 million to procure diesel generators. The municipality ordered five (5) 100 kVA generators as back up throughout the Garden Route District, in the event of emergencies. The municipality received one (1) generator, two (2) will be delivered by 29 September 2023 and the remaining two (2) on 6 October 2023.
- 9.5.2 The municipality applied to the Department of Mineral Resources and Energy (DMRE) to modify some of the products, such as energy-saving bulbs and air conditioners, which were consuming most of the energy and had received R15 million from the Department over a period of three (3) years and more than 1 000 bulbs has been retrofitted. Occupancy sensors, smart meter and loggers and streetlights were installed. The inverter-linked air conditioner units, which reduce energy consumption, contribute to the low carbon footprint of all municipal buildings in the district. Part of the agreement with the DMRE is that for every R1 million spent, a job must be created. A few young people, with electrical qualifications, were employed on a contractual basis.
- 9.5.3 Energy efficiency awareness campaigns includes broadening the audience of other local municipalities within the district such as Bitou, Kannaland, etc. The items used during the awareness campaigns are t-shirts and car stickers and these programmes includes the youth and students. The awareness campaign messages are transmitted in all three (3) official languages of the Western Cape.
- 9.5.4 The project plan for the 2023/24 financial year included various activities to realise the goals such as the appointment of professional service providers, a contractor for lights and electrical as well as a contractor for air conditioning. The air conditioning system needs to be installed and energy awareness should be conducted as well as capacity building.
- 9.5.5 The De Hoek Mountain Resort is transitioning to a green accommodation facility and a 45kWp PV generating plant with a 160KW Lithium-ion battery storage was installed. The current electricity bill of De Hoek Mountain Resort amounts to R45 000 per month, the municipality

however envisages that in two years' time the Garden Route District Municipality might only spend R5 000 per month and the solar system would then have paid for itself.

- 9.5.6 **Kannaland Municipality** received funding of R 1 075 000 from the Emergency Municipal Loadshedding Relief Grant. The municipality procured 50 kVA, 80 kVA and 100 kVA generators, each resulting in a total expenditure of R 1 004 000 which equates to 93,4% expenditure of allocation. Therefore, the municipality applied for a rollover of the remaining funds to purchase ancillary items associated with the final connection and implementation of the generators.
- 9.5.7 Discussions are underway with the Department of the Premier on the Energy Resilience Programme to assist indigent communities. With reference to the emergency loadshedding packs, a lighting device, either battery chargeable, solar or a combination of the two (2) whichever is cheaper, will be provided. A total of 2 693 devices will be delivered to registered indigent beneficiaries. The municipality will provide a proposal with a distribution plan, the responsible person, the facilities that need to be used for distribution and the communication method to convey the messages including the safety plan. Weekly progress meetings will take place.
- 9.5.8 The service delivery challenges for electrical services include that all transformers require servicing and meters to measure street light power usage and an upgrade of the substations is required. More generators are needed for municipal buildings and water supply infrastructure. Currently two (2) existing generators are being fixed for this purpose. Electric cables of all sizes are required and vandalism of infrastructure is experienced, such as theft through illegal connections, electric poles plant and equipment.
- 9.5.9 **Hessequa Municipality** received R5.8 million from the Emergency Municipal Loadshedding Relief Grant. The municipality had spent R5.2 million of its own funds to procure six (6) generators at critical sites. All units are insured, secured and installed with drip trays that have the capacity to contain full fuel and oil capacity of the respective units. Nine (9) additional generators were purchased with the grant received from the province for the 2022/23 financial year.
- 9.5.10 During the 2023/24 financial year, the Department of Mineral Resources and Energy (DMRE) provided funding of R4 million to assist the municipality with Energy Efficiency and Demand Side Load Management projects. Further Energy Efficiency and Demand Side Load Management project initiatives included more solar PV systems on municipal land and buildings, replacement of water heater elements with heat pumps, and battery energy storage for peak shaving.
- 9.5.11 The municipality envisages to have more solar PV systems on municipal land and buildings, they intend to replace water heater elements with heat pumps and have battery energy storage for peak shaving. The municipality is also piloting an 80 hot water control system demand response and future funding will enable the broader rollout of the project.
- 9.5.12 Hessequa Municipality foresees to proceed with over R15 million year on year budget for electricity capital works and refurbishment, to undertake costs to serve studies to ensure tariffs are cost reflective every 5 years, to continue with the Integrated National Electrification Programme as funded by DMRE, to invest in smart metering and automated metering infrastructure to ensure improved revenue collection and participate in revenue protection forums and canvas for community support against vandalism of energy systems.

- 9.5.13 **George Municipality** received R14 million in Emergency funding from the Department of Local Government for the purchase and installation of backup energy supply. The backup supply may include generators, renewable power sources, batteries for water and wastewater infrastructure. The municipality, however, spent R32 million on generators from its own funds.
- 9.5.14 The municipalities emergency strategy overview includes Energy efficiency and demand side management, Self-generation such as renewable energy and diesel generation for municipal facilities, to maximise wheeling and streamline the process, enable and promote SSEG, restructure tariffs to be cost reflective (cost of supply study implementation), feasibility study of various technologies and smaller Battery Energy Storage Systems (BESS) systems. The medium-term strategy includes large scale self-generation installations, utility scale BESS systems and Independent Power Producers (IPPs).
- 9.5.15 The long-term priorities are a 30 MWp solar plant and the target date is December 2025 depending on availability of funding and 100 MWH battery storage and the target date is June 2026 depending on availability of funding.
- 9.5.16 The challenges identified by the municipality is having capital to support the energy resilience strategy, resource constraints such as shortage of skills and time and lengthy approvals of EIAs. In terms of wheeling the scalability of the system and the pilot is under investigation. If wheeling will take place through Eskom, a supply agreement with Eskom needs to be amended. With reference to the IPP long term power purchase agreements, it will be made easier and there will be a need to streamline and make the IPP process easier. In general, the challenge will exist to assist farmers in Eskom controlled areas within the municipality, the criteria for the exemption from a stage of loadshedding needs to be stated and adhered to so that municipalities are aware what they are aiming for and the availability of property for generation, the PV requires about 1ha/MWP.
- 9.5.17 **Oudtshoorn Municipality** received R 4,665 000 from the Emergency Municipal Loadshedding Relief grant. Oudtshoorn is supplied by the Raubenheimer catchment area under gravity and is therefore not affected by load shedding. The town does not have water treatment works and only disinfects water from the Raubenheimer Dam. The disinfection is being managed by small generators.
- 9.5.18 Areas like Dysselsdorp and Blomnek in De Rust which are supplied from the Klein Karoo Rural Water Supply Scheme wellfields and water treatment works requires electricity.
- 9.5.19 The critical Klein Karoo Rural Water Supply Scheme and Dysselsdorp Water Supply Systems are 100% dependent on groundwater resources.
- 9.5.20 Emergency power is required for sanitation in Oudtshoorn and Dysselsdorp Wastewater Treatment Works, Rosevalley Sewage Pumpstation and four (4) small sewage pumpstations.
- 9.5.21 **Bitou Municipality** indicated that they used the R5.6 million that was allocated from the Emergency Municipal Loadshedding Relief Grant. The municipality installed generators ranging from 150 to 650 kVA at various sites in the municipality to mitigate the impact of prolonged loadshedding on municipal water and sanitation services.
- 9.5.22 The key water sites identified was the Roodefontein Dam Bulk Raw Water Pump Station and the Uplands Keurbooms River Bulk Raw Water Pump Station. Other sites of new generator installations include the Kurkland Wastewater Treatment Works, Cutty Sark Water reservoir and elevated towers, Ebenezer Water reservoir and elevated tower, Kwanokuthula Water reservoir and tower and the Municipal Depot mobile generator.

- 9.5.23 The water supply to all areas in the municipal area was the key focus for the municipality and their next focus will be on the supply of diesel for the backup generators.
- 9.5.24 **Mossel Bay Municipality** received R5 million in funding from the Emergency Municipal Loadshedding Relief Grant to procure three (3) emergency standby diesel generators for critical water pump stations.
- 9.5.25 Future long-term project plans include a 30 MVA Independent Power Producer project and should this project be successful, it would be a flagship project. A further project for the future is the replacement of existing meters with smart meters as soon as funding becomes available.
- 9.5.26 A Memorandum of Understanding (MOU) between the municipality and PetroSA exists, to investigate renewable energy projects and it has been concluded.
- 9.5.27 The current projects include the SSEG installation at the Thusong Centre and security measures are put in place at substations for the protection of electrical equipment against vandalism and theft.
- 9.5.28 **Knysna Municipality** received R2.4 million from the Emergency Municipal Loadshedding Relief Grant which had been spent on emergency power at various sewage pump stations and municipal offices.
- 9.5.29 The municipality has completed and approved electrification projects for the 2023/24 financial year, which serves to connect informal settlements and make them energy efficient.
- 9.5.30 The municipality embarked on a feasibility study for a waste-to-energy plant which would help to address problems experienced in the municipality namely refuse collection and disposal, and electricity generation. This project has an estimated cost of R29 million, but it will be funded by private investors.
- 9.5.31 Future projects for the municipality include the upgrading of the Bongani Substation and linking it up with the Khayaletu Substation, the Light Efficiency Project, and the Token Identifier (TID) Rollover, which would upgrade prepaid electricity meters to a new token standard.
- 9.5.32 The municipality is experiencing challenges such as ageing electrical infrastructure, vandalism, rapidly increasing development under power lines, expanding informal settlements, electricity theft via illegal connections, unfavourable weather conditions, fires in informal settlements, public protest actions, and project funding constraints.

**10. Engagement with Professor Janet Cherry, Professor in Developmental Studies at the Nelson Mandela University on the Nelson Mandela Bay Community Co-operative and its efforts in energy cooperatives and community collaborations**

- 10.1 The Nelson Mandela Bay Community Co-operative is running a pioneering project in KwaZakhele township, which serves as a transition township project model for community-owned renewable energy initiatives. The choice of KwaZakhele township was strategic, considering its existing infrastructure and workforce with industry experience.
- 10.2 When defining the concept for this project the following were considered:
  - (i) Building on previous action research projects exploring the concept of sustainable human settlements; and
  - (ii) Pioneering an integrated model of local and localised economic development on principles of community self-sufficiency and independence.

- 10.3 The Transition Township was chosen since communities need to transition away from a fossil-fuel based economy in the current global context of climate change, and transition to a new model of economic development in working-class communities, where residents and workers take control of their own resources and create sustainable livelihoods in an integrated and localised economy.
- 10.4 The research approach was interdisciplinary and a participatory action research project which involves maximum participation, ownership, and empowerment of the research process by the residents themselves.
- 10.5 The Saltuba Gap Tap Pilot Project, initiated in 2019, marked a significant milestone in this endeavour for this project. The project demonstrated the feasibility of social ownership of renewable energy assets with a 25-household pilot equipped with a 5-kilowatt solar photovoltaic (PV) array connected to the municipal grid.
- 10.6 The conceptual framework for neighbourhood production systems envisions a decentralised network of energy, food production, waste management, and water collection systems within a township. Each household would be allocated a small-scale renewable energy installation, contributing to a substantial city-wide renewable energy capacity.
- 10.7 The project's broader implications addressed and includes its potential to empower marginalised communities economically and socially. The project also aims to shift the paradigm from passive consumers by enabling community members to become electricity producers. Prof Cherry advocated constantly for the aspiration for widespread participation in renewable energy production beyond affluent neighbourhoods and emphasised this as a crucial aspect for achieving a just energy transition.
- 10.8 Despite certain challenges, this project exemplified a proactive approach towards sustainable development and social empowerment. This project and similar initiatives will contribute to South Africa's energy security, socio-economic development, and climate resilience goals.
- 10.9 The People's Climate Change (PCC) report, which encapsulates the recommendations launch is planned for the second week of March 2024.

## **11. General concerns**

- 11.1 The Committee noted that in Theewaterskloof Municipality and all other regions in terms of purchasing generators and supply of diesel chooses different suppliers and noted with concern whether all the respective regions had been applying the same risk management protocol to ensure the availability of generators and consulting with each other to work together in terms of cooperative governance.
- 11.2 The Committee questioned the need for Transaction advisors for municipalities and if no such capacity exists in municipalities to appoint transaction advisors and the reason the province is appointing transaction advisors for municipalities. Should the need for Transaction Advisors exist the Committee felt that the Western Cape Government could assist municipalities in being responsible for advertising, tendering, and appointing Transactional Advisors and provide funding for this function.
- 11.3 Certain municipalities had huge funding model challenges. Some municipalities seem to be in control of the situation such as Stellenbosch and Drakenstein Municipalities and were able to

work towards the energy resilience programme. However, the case may not be the same for all municipalities such as Langeberg municipality. The Committee should consider inviting the Provincial Treasury and Department of Economic Development and Tourism (DEDAT) to brief the Committee on the funding model for the energy resilience programme.

- 11.4 The Committee indicated that the Department of Local Government and Provincial Treasury report on their engagements with municipalities in determining how money is being allocated to each municipality and the formula used since money was made available from the Provincial Revenue Fund to mitigate the impact of loadshedding.
- 11.5 Municipalities should be discouraged to use the deviation processes in the event that a municipality does not utilise the allocated grant in a particular financial year, since municipal timing seems to be a challenge when procuring a service or resources and this causes deviations from normal processes.
- 11.6 SALGA should be involved in solving the municipal challenges and that they should play a more meaningful role in assisting municipalities.
- 11.7 The Committee raised its concern about the poor response to calls for bids by public entities across a wide spectrum of services. It seemed as if a growing percentage of private entities were not interested in doing business with government which removed the important “competition” factor which ensured competitive pricing for goods and services.
- 11.8 The Committee also noted the challenges faced by municipalities, particularly rural municipalities in procuring and installing generators, when municipalities do not receive bids they deviated from the normal supply chain processes.
- 11.9 Concern was raised at the increase in the number of generators producing noise and air pollution during load-shedding periods. Some generators produced emissions which caused neighbours, especially residential neighbours, to complain and object to the smell of the fumes and noise produced.
- 11.10 The Committee should consider engaging with National Treasury, the Financial and Fiscal Commission (FFC) and related provincial bodies to establish a grant that would fund municipalities in tackling the country-wide energy crisis given the budgetary decreases in the equitable share of the Western Cape government. The grant could be a financial solution for municipalities until the energy crisis would be permanently resolved.
- 11.11 The Committee raised concerns with the formula being used to determine funding allocations to respective municipalities and that funding should be equitably distributed.
- 11.12 The Committee noted that certain municipalities augmented the purchase of generators from their own funding in cases where the allocation to municipalities was not sufficient to acquire generators or alternate resources to address the energy needs in the regions.
- 11.13 The Committee noted with concern whether the technical problems currently experienced at Power stations such as Kusile and Medupi will be addressed and will the units be regularly maintained and serviced.

## **12. Recommendations:**

- 12.1 That the next parliament, the 7<sup>th</sup> parliament, consider appropriate action regarding the ongoing energy crisis in South Africa and the province’s response thereto; and

12.2 That the next parliament, 7<sup>th</sup> parliament, encourage and probably facilitate the sharing of best practices and the vast experience gained over the last few years by many entities in the private and public sector, including local governments.

### **13. Concluding remarks**

Our sincerest thanks to all the stakeholders who engaged with the Committee as part of its work. It is fair to say that the Committee conducted its proceedings in a fair manner and in a spirit of collaboration and betterment for the people of the Western Cape. A special thanks to the members of the Committee for their robustness and spirit of cooperation.

Report to be considered.

A handwritten signature in black ink, appearing to be 'C. Fry', written over a horizontal line. The signature is stylized and cursive.

.....  
**Mr C Fry, MPP**  
**Chairperson of the Ad Hoc Committee on Energy Crisis**



#### 14. List of Acronyms

|               |   |
|---------------|---|
| <b>BAC</b>    | <b>Bid Adjudication Committee</b>                     |
| <b>BESS</b>   | <b>Battery Energy Storage System</b>                  |
| <b>CDC</b>    | <b>Community Day Centre</b>                           |
| <b>CHC</b>    | <b>Community Health Centre</b>                        |
| <b>CoCT</b>   | <b>City of Cape Town</b>                              |
| <b>COGTA</b>  | <b>Cooperative Governance and Traditional Affairs</b> |
| <b>DEDAT</b>  | <b>Department of Economic Development and Tourism</b> |
| <b>DLG</b>    | <b>Department of Local Government</b>                 |
| <b>DMRE</b>   | <b>Department of Mineral Resources and Energy</b>     |
| <b>DORA</b>   | <b>Division of Revenue Act</b>                        |
| <b>DSM</b>    | <b>Demand Side Management</b>                         |
| <b>EAP</b>    | <b>Energy Action Plan</b>                             |
| <b>EDI</b>    | <b>Electronic Data Interchange</b>                    |
| <b>EEDSM</b>  | <b>Energy Efficiency and Demand Side Management</b>   |
| <b>EIA</b>    | <b>Environmental Impact Assessment</b>                |
| <b>EMS</b>    | <b>Emergency Medical Services</b>                     |
| <b>GDP</b>    | <b>Gross Domestic Product</b>                         |
| <b>GW</b>     | <b>Gigawatt</b>                                       |
| <b>INEP</b>   | <b>Integrated National Electrification Programme</b>  |
| <b>IPP</b>    | <b>Independent Power Producer</b>                     |
| <b>IRP</b>    | <b>Integrated Resource Plan</b>                       |
| <b>kV</b>     | <b>Kilovolt</b>                                       |
| <b>kVA</b>    | <b>Kilovolt-ampere</b>                                |
| <b>kW</b>     | <b>Kilowatt</b>                                       |
| <b>kWh</b>    | <b>Kilowatt hour</b>                                  |
| <b>LED</b>    | <b>Light Emitting Diode</b>                           |
| <b>MER</b>    | <b>Municipal Energy Resilience</b>                    |
| <b>MES</b>    | <b>Minimum Emission Standards</b>                     |
| <b>MOU</b>    | <b>Memorandum of Understanding</b>                    |
| <b>MTEF</b>   | <b>Medium-Term Expenditure Framework</b>              |
| <b>MVA</b>    | <b>Megavolt-amperes</b>                               |
| <b>MW</b>     | <b>Megawatt</b>                                       |
| <b>MWh</b>    | <b>Megawatt hour</b>                                  |
| <b>MWp</b>    | <b>Megawatt peak</b>                                  |
| <b>NECOM</b>  | <b>National Energy Crisis Committee</b>               |
| <b>NERSA</b>  | <b>National Energy Regulation</b>                     |
| <b>NMD</b>    | <b>Notified Maximum Demand</b>                        |
| <b>OCGT</b>   | <b>Open Cycle Gas Turbines</b>                        |
| <b>PHC</b>    | <b>Primary Health Care</b>                            |
| <b>PV</b>     | <b>Photovoltaic</b>                                   |
| <b>REIPPP</b> | <b>Renewable Independent Power Producer Programme</b> |
| <b>SALGA</b>  | <b>South African Local Government Association</b>     |
| <b>SCM</b>    | <b>Supply Chain Management</b>                        |
| <b>SSEG</b>   | <b>Small-scale Embedded Generation</b>                |
| <b>TPA</b>    | <b>Transfer Payment Agreement</b>                     |
| <b>UPS</b>    | <b>Uninterrupted Power Supply</b>                     |
| <b>WCG</b>    | <b>Western Cape Government</b>                        |
| <b>WCPP</b>   | <b>Western Cape Provincial Parliament</b>             |
| <b>WWTW</b>   | <b>Wastewater Treatment Works</b>                     |