



Ecological & Environmental Specialists



**MONTHLY ENVIRONMENTAL COMPLIANCE AUDIT  
REPORT for the PROPOSED ESTABLISHMENT OF THE  
Pongola Battery Energy Storage System, within the  
jurisdiction of the Uphongolo Local Municipality  
(KwaZulu-Natal)  
November 2022**

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## DECLARATION

I, Rofhiwa Mukhudi declare that:

- I act as the independent ECO in this project;
- I will perform the work relating to the project objectively, even if this results in views and findings that are not favourable to the proponent;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the ECO work relevant to this project, including knowledge of the Act (NEMA), regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations, and all other applicable legislation.
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken concerning the application by the competent authority; and the objectivity of any report, plan, or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this report are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of Section 24F of the Act.



Rofhiwa Mukhudi

***Pongola BESS ECO***

***SJM Ecological & Environmental Specialists***

**November 2022**

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## 1. PURPOSE

SJM Ecological & Environmental Specialists as an independent environmental consultant has been appointed by Eskom Holdings SOC Limited to carry out the environmental monitoring & Auditing for the construction of a Battery Energy Storage System (BESS) at Pongola within the Uphongola Local Municipality (KwaZulu-Natal Province)

Eskom Holdings SOC Limited has identified distributed storage as an alternative to support renewable energy expansion in South Africa. Electricity generation from renewable sources is limited by the intermittency and variability of wind and solar resources, i.e. when wind blows and sun shines. Energy storage allows for the storing of electricity for later use even when the renewable resource is unavailable. The process involves the conversion of electrical energy into another form of energy such as chemical or kinetic energy, store it temporarily and then converted back to electrical energy, therefore giving the utility considerable flexibility and control.

The Distribution Battery Energy Storage project will directly contribute towards the following three (3) Eskom's strategic objectives:

- Ensure reliable supply of electricity to all South Africans;
- Securing adequate future electricity supply at the optimal cost of renewable energy for South Africa; and
- Directly and indirectly supporting the socio-economic development objectives of South Africa.

Eskom will be faced with massive loan recalls and contract penalties if this project does not go-ahead. The World Bank and co-financiers approved distributed battery energy storage and Solar PV as an alternative to support renewable energy expansion in South Africa and to replace the terminated Kiwano CSP 100MW project. The Kiwano CSP (Concentrating Solar Power) plant project has been deemed too expensive to consider at this stage.

This progress report is for construction phase of the BESS for the Month of Noovember 2022.

## 1.1. EXPERTISE OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

The Environmental regulation - Government Notice 982 of 2014, specifically requires practitioners involved in the EIA process to list their qualifications and expertise in the report. An Environmental Assessment Practitioner (ECO) appointed in terms of Regulation 12 (1) or 12 (2) of Government Notice 982 of 2014 is required to:

- Be independent
- Have expertise in conducting environmental impact assessments including knowledge of the Act, these regulations and any guidelines that have relevance to the proposed activity
- Perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- Comply with the Act, these regulations and all other applicable legislation
- Take into account, to the extent possible, the matters listed in Regulation 18 of Government Notice 982 of 2014 when preparing the application and
- Disclose to the applicant and the competent authority all material information in the possession of the ECO that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority in terms of these regulations or the objectivity of any report, plan or document to be prepared by the EAP in terms of these regulations for submission to the competent authority.
- The table below lists the ECO involved in this project.

### 1.2. Details of the ECO

Name	Mukhudi Rofhiwa
Company	SJM ECOLOGICAL & ENVIRONMENTAL SPECIALISTS PTY LTD
Physical Address	Unit 56 Seoul43 Mulder Street, Centurion 0157
Postal Address	Unit 56 Seoul43 Mulder Street, Centurion 0157
Telephone Number	012 681 4037
Cell	072 655 1332
E-mail	mukhudiholdings@gmail.com
Role in Project	Environmental Control Officer

Mukhudi Rofhiwa is a qualified and experienced Environmental Control officer with 10 years of experience on various environmental monitoring projects that include construction projects.

### 1.3. Detail of Client

Name	Thando Zungu (Representative of Proponent)
Company	Eskom Holdings SOC Limited
Physical Address	Eskom Holdings SOC Limited I KZN Operations Un.
Telephone number	031 710 5044
Cell	071 758 6711
Email	<a href="mailto:Zunguta@eskom.co.za">Zunguta@eskom.co.za</a>
Role in Project	Eskom environmental Officer

## **2. PROJECT DESCRIPTION**

### **2.1. Environmental Monitoring**

SJM Ecological & Environmental Specialists as an independent environmental consultant has been appointed by Eskom Holdings SOC Limited to carry out the environmental monitoring & Auditing for the construction of a Battery Energy Storage System (BESS) at Pongola within the Uphongola Local Municipality (KwaZulu-Natal Province)

### **2.2. Persons Responsible for the Implementation of the EMPR**

The following persons will be responsible for the implementation of the EA & EMPR:

- Eskom Project Manager (PM)
- Environmental Control Officer (ECO)
- Main Contractor (C)
- Sub-contractors



## 2.3 LEGISLATIVE REQUIREMENTS

The BESS development project will be guided and governed by Legislative Acts and guidelines such as those shown in table 1 below.

Table 1: Environmental statutory requirements

ACT	ACT NO	REMARKS
Atmospheric pollution prevention Act	45 of 1965	Controls all forms of air pollution. -Smoke control zones -Dust control -Air pollution from waste
National Forest Act	84 of 1998	Provides measures for the protection of certain forests and trees
Advertising on roads and ribbon development Act	21 of	Prohibits the depositing or leaving of certain articles or materials near certain roads -Structures near roads -Waste near roads
Conservation of Agricultural Resources Act	43 of 1983	Controls the utilisation and protection of wetlands, soil conservation, control and prevention of veld fires, control of weeds and invasive plants.
Agricultural Pests Act	36 of 1983	Provides control to prevent and combat agricultural pests, including importation of exotic plants and animals
National Veld and Forest Fire Act	101 of 1998	Deals with the establishment of fire protection Associations, responsibilities for the preparation and maintenance of fire breaks
National Environmental Management Act	107 of 1998	Provides for cooperative environmental governance by establishing principles for decision making on matters affecting the environment.
Environment Conservation Act	73 of 1989	Provides control for the effective protection and utilisation of the environment, littering, waste disposal, noise and various other activities, which may have a detrimental effect on the environment -Provides for waste management

ACT	ACT NO	REMARKS
Fencing Act	31 of 1963	Prohibits damage to a property owners gates and fences Prohibits climbing or crawling over or through fences without permission
Hazardous Substances Act	15 of 1973	Sale of group I, II, III and letting, use, operation, application and installation of group III hazardous substances. Transportation of hazardous substances.
Health Act	63 of 1977	Control of health aspects of waste disposal and water treatment Regulates, rubbish, sewage
National Roads Act	54 of 1971	Prohibits disposal of waste near National roads
Occupational Health and Safety Act	85 of 1993	Protects workers from exposure to hazardous substances and working conditions
National Heritage Resources Act	25 of 1999	Controls for the protection of natural and historical resources.
National Water Act	36 of 1998	Provides for all aspects relating to pollution of surface

### 2.3. Areas of Inspection

- Access to site (Access and control)
- Ablution Facilities (chemical toilets)
- Use of PPE
- Waste management
- House Keeping
- Spills of oil, fuel and cement.
- Soil and ground water pollution
- Vegetation management
- Fauna (killing and hunting of animals is strictly prohibited on site)
- Soil erosion control
- Critical Biodiversity Area

## 2.4. Major construction activities

That took place onsite during the month of November 2022 are as follows:

- Excavations
- Site clearance

## 2.5. Outstanding matters

- Proof of waste water disposal has not been submitted to the ECO.

## 2.6. Daily Pre- warnings and NCR

- A written warning was issued to Hyosung on the 16 November 2022 by the ECO for the contravention of Clause 12 & 30 of the EA ref: **14/12/16/3/3/1/2109** dated 12/06/2020 and the EMPr. **(See Annexure A)**.
- The written warning was acknowledged and an action plan/amended method statement for rehabilitation was sent to the ECO for comments and approval. **( see Annexure B)**
- Rehabilitation of the affected area is in progress and must continue to be monitored until it has fully recovered.



Picture 2.6.1. Shows the affected CBA portion.

## 2.7. Urgent Matters

- Immediate rehabilitation of the affected CBA.

### 3. ENVIRONMENTAL PARAMETERS

#### 3.1. Spillages

No spillage were recorded at this reporting period. The use of oil drip trays is being implemented on site



**Table 1:** Hydrocarbon Spills recorded during the month of November 2022

Type of Spills	Quantities
Hydraulic oil	00 Spills
Diesel	00 Spills

### 3.2. Dust on site

Dust suppression measures are not being implemented on site, the contractor must keep in mind that dust is a health hazard to the employees on site and familiarise himself with the EMPr & the dust control method statement. The ECO will follow up on this issue.

### 3.3. Protected Baobab tree on site

The Baobab (*Adansonia digitata*) is a nationally protected tree and must not be impacted by the project before a permit is granted. The contractor has clearly demarcated the protected tree and the No go area sign is visible.



Picture 3.3.1. Shows a nationally protected Baobab tree barricaded.



### 3.4. Verification of the true environmental boundary coordinates

On the 14<sup>th</sup> of November 2022 the ECO had to confirm the true environmental boundary coordinates with the surveyor & the project engineers before issuing a written warning. It was then confirmed that approximately **597 square meters** of the CBA on the south western part of the BESS area was cleared and excavated.



Picture 3.4.1. Shows the ECO & the Surveyor verifying the true environmental boundary.

### 3.5. Environmental training & awareness

The Eco confirmed that environmental induction is being carried out by the contractor as per the EMP<sub>r</sub>, proof of attendance registers and environmental discussion topics were provided to the ECO during the Audit. The below is a summary of dates, discussion topics and number of attendees;

Format	Name of Content Covered / presentation	Date Conducted	No. of Attendees
Internal Training	(Induction, EHS Awareness, FPP, HSMP, EA, EMP <sub>r</sub> )		
	Snake awareness training	25/10/2022	16

	Spill Prevention & Spill Training	17/11/2022	15
	Waste Management Training	02/11/2022	16
	Biodiversity Awareness training	05/11/2022	16
	Environmental Awareness (CBA) Env Ms 7 Rev 007-001	27/10/2022	16
	Environmental Aspects & Impacts	22/11/2022	15
External Training			

### 3.6. Fire risk

Basic fire-fighting equipment, fire extinguishers, must be placed at strategic locations on site (e.g. at the site office, flammable material store and watchman's container). Smoking is prohibited near places where any readily combustible or flammable materials are present. Notices must be prominently displayed prohibiting smoking in such areas. No open fires are allowed on site.



Picture 3.6.1. Shows a smoking area with a basic firefighting equipment & signage.

### 3.8 Soil and groundwater pollution

No soil and ground water pollution was observed on site.

### 3.9 Safety

All workers must have Personal Protective Equipment (PPE). PPE being used include work suites, safety shoes, hard hats, gloves, goggles, dust mask and ear plugs. Workers have been observed using the appropriate PPE.

### 3.10 Complaints

No complaints were recorded during the month of November 2022.

### 3.11 Mobile chemical toilets

Male & Female Mobile chemical toilets have been relocated and are mounted to the ground. The toilets are still being serviced twice a week, however, proof of disposal was not available for reference.



### 3.12 Rehabilitation

No rehabilitation has been done thus far except for the affected CBA.

### 3.13 Incidents

- Excavation & clearance of an authorize portion of the CBA.



### 3.14 Compliance summary

For the purposes of this audit, the description of the **compliance performance** methodology is briefly explained as follows:

- **Compliant** - Means that the Contractor has fully complied with all EA and EMPr requirements (and specifications and to the satisfaction of the ECO).
- **Partial compliance** - Is applicable in areas where the Contractor has partially complied and is aware but has not fully complied with the EA and EMPr conditions.
- **Non-compliance** - Will imply that the Contractor is not complying with the requirements of the EA and EMPr at all, and is not making any efforts/no evidence to remediate the situation.
- **N/A** – Not Applicable, when the activity has not commenced or could not be determined by the auditors at the time the audit was undertaken.

The following colour coding was used to indicate areas of Compliant, Partial Compliance, Non-compliance, and Not Applicable:

COMPLIANCE POINTS ANALYSIS			
0	1	2	
Not complying	Partially complying	Compliant	
STATISTICS OF SITE COMPLIANCE			
Audit date	Total points of the report	Compliance points of the contractor	Percentage
30 November 2022	220	205	93.1%

The contractors still show substantial compliance to the conditions of the EA and the EMPr, however, the reported non-compliances mentioned above has led to the audit score dropping down comparing to the previous month of October. The Empr, EA, licenses and other environmental documents are present onsite and the contractor familiarize himself with them.

## 4 Conclusion

The contractor and all the sub-contractor must comply with all the legal documents on site to avoid any legal contraventions and follow their working procedures on their method statement.

## 5 Recommendations during construction phase

- It is the responsibility of the Project Manager and Contractor to ensure compliance with all the environmental specifications in the EA, EMPr document as well as the relevant legislation.
- All the waste generated should be taken to the registered landfill.
- Induction and training should be conducted every morning before commencing activities on site.
- All the protected trees removed should be recorded.
- All the mobile chemical toilets should be serviced twice a week.
- All the supervisors should conduct daily toolbox talk every morning.
- Site is to be cleared and rehabilitated back to its original state.
- Limit damage to existing access roads; i.e.
  - Minimise damage to environment due to excavation and rehabilitation of access roads; and
  - Minimise loss of topsoil and enhancement of erosion.
  - When required, speed limits shall be indicated and speed control measures applied on the road.

# ***ANNEXURES***

***ANNEXURES A - Written Warning***

***ANNEXURES B - Rehabilitation method statement***

***ANNEXURES C – Audit Checklist***