



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)  
October 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***

**October 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 October 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   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 October 2022 are as follows:

- Removal of Eskom old construction waste
- Site clearance

#### 2.5. Outstanding matters

- Signing of the revised layout by the ECO.
- Submission of the Botanist report by the ECO

#### 2.6. Daily Pre- warnings and NCR

- No NCR was given during the month of October 2022.

#### 2.7. Urgent Matters

- No urgent matters were recorded this month.

### 3. ENVIRONMENTAL PARAMETERS

#### 3.1. Spillages

No spillage were recorded at this reporting period .

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

Type of Spills	Quantities
Hydraulic oil	00 Spills
Diesel	00 Spills

### 3.2. Waste Management

The site has bins in strategic that are easily accessible. No litter was seen on site. Contractor must add a scrap metal bin. No waste statistics was recorded during this reporting period on the month of October 2022. All the waste is being separated at the site.



Picture 3.2.1. Show some of the waste bins labelled on site.

### 3.3. Termite Mounds removal

Four termite mounds were safely removed by the herpetologist as per the EMPr. A Nile monitor lizard was found in one of the termite mounds and was safely removed from site.



### 3.4. Snakes on site

A snake awareness & induction was conducted by the ECO and the herpetologist prior to the construction activities. A baby puff adder was found during an environmental site walkthrough. Puff adder is known to be the second deadliest snake in Africa with its cytotoxic venom. During site clearance a non-venomous Southern African python was also found and was relocated to Pongola game reserve.



Picture 3.4.1. Show a snake catcher with a puff adder and Southern African python.

### 3.5. Relocation of natal-lilies

*Crinum moorei* species, also known as the Natal lily, was noted during the site walk-through. These were however not visibly abundant due to a lack of any above-ground leaves, flowers or seed pods. *Crinum* Sp is listed as Vulnerable according to the Red List of South African Plants. Its wild population is decreasing and has declined by at least 20% over the past 70 years. This decline is caused by the harvesting of bulbs for the traditional medicine plant trade. Relocation of this species was undertaken during site clearing and were taken to the nearby 4x4 Boer dairy farm.



Picture 3.5.1. Show Natal-lilies being re-planted at 4x4 boer dairy farm.

### 3.6. Top soil Management

Top soil has been stock piled at a demarcated area on site, an ongoing alien invasive management must be conducted throughout the duration of the project.



Picture 3.6.1. Shows an area demarcated for top soil stockpiling.

### 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 October 2022.

### 3.11 Mobile chemical toilets

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



### 3.12 Rehabilitation

No rehabilitation has been done thus far.

### 3.13 Induction and training

Each employee of each subcontractor working on the project needs to receive environmental induction and be familiar with Eskom policy documents, those include Health, Safety, and Environmental and other relevant policies. Environmental training must include site induction, Emergency response training, familiarisation with site environmental controls and requirements of the EMPr. Induction and training is an on-going requirement on site.



**Table 5:** Record of Induction Training.

Type of training	Topic	Number of people	ECO
Environmental induction	EMP, EA, Permits and snake awareness	16	SJM

### 3.14 Incidents

- No incidents were reported in this reporting period.



### 3.15 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
28 October 2022	100	94	94%

The contractors show substantial compliance to the conditions of the EA and the EMPr compiled for the project during inspections and reporting stage. Environmental compliance is being observed at the construction site. The Empr, EA, licenses and other environmental documents are present onsite and are used as reference.

## 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.

