Appendix K

HERITAGE STATEMENT

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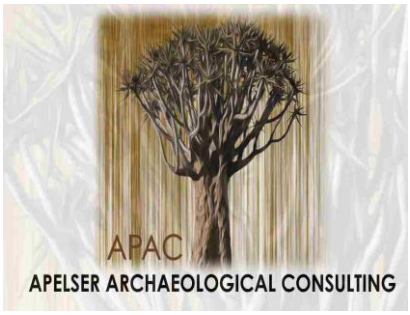

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APAC024/131 **2024-09-23**

To: WSP Group Africa (Pty) Ltd

RE: Heritage Statement - Komati Power Station Solar Photovoltaic Facility, Battery Energy Storage Systems and Associated Infrastructure Amendments, Mpumalanga Province

APelser Archaeological Consulting cc (APAC cc) was appointed by WSP Group Africa (Pty) Ltd to provide a Heritage Statement for the proposed amendments related to the approved Komati Power Station Solar PV/BESS & associated infrastructure Facility in Mpumalanga.

Background & Project Description

WSP Group Africa (Pty) Ltd (on behalf of Eskom Holdings SOC (Ltd) (Eskom)) appointed APelser Archaeological Consulting cc (APAC cc) to provide a Heritage Statement for the proposed expansion of the authorised 100 MW Solar Photovoltaics (PV) Energy Facility (SEF); 150 MW Battery Energy Storage System (BESS); and associated infrastructure at the Komati Power Station located in the Mpumalanga Province, South Africa. An earlier Heritage Impact Assessment for the Facility and associated development informed the Statement (**See APAC023/55**).

The Environmental Impact Assessment (EIA) was undertaken to meet the requirements of both the World Bank Group (WBG) Environmental and Social Framework (ESF) and the EIA requirements under the National Environmental Management Act (Act 107 of 1998) (NEMA). The Komati Power Station Facility received an environmental authorisation (EA) (**DFFE:14/12/16/3/3/2/2456**) in 02 February 2024. The Amendment Process prescribed in GNR 326 promulgated in terms of section 24(5) and 44 of the National Environmental Management Act (No. 107 of 1998) (NEMA) will be undertaken.

Eskom is a South African utility that generates, transmits and distributes electricity and supplies approximately 95% of the country's electricity. Eskom's 2035 strategy encompasses the journey that Eskom intends to take in response to the changing energy environment and the impact this has towards a sustainable power utility. This strategy is necessitated by the challenges that Eskom faces as a business as well as the global and local shifts occurring in the energy sector particularly with respect to environmental and climate change challenges, difficulties in accessing financing and changes to the macro industry environment significantly altering the energy supply industry. The road to 2035, includes the shutting down of a number of coal-fired power stations, repurposing and repowering, delivering new clean generation projects, expanding the Transmission grid, and rolling out micro grid solutions.

Several power stations are reaching the end-of-life. These stations will go into extended cold reserve and are most likely to be fully decommissioned in the future. Eskom is considering a shutdown, dismantling and repurposing of some of its fleet as it reaches its end-of-life. Komati Power Station, located near Middelburg in the Mpumalanga Province, reached its end-of-life in September 2022. Eskom has developed a Just Energy Transition Project (EJETP) aimed at mitigating the negative social impacts resulting from the shutting down of the plant and to implement projects for the repowering and repurposing related to the Komati Power Station. This is one of several initiatives in which Eskom proposes to establish a solar energy generating facility which will include the installation of a 100 MW SEF as well as 150MW BESS facilities.

The proposed project amendment will comprise the following key components:

- Solar Energy Facility;
- Site Substation(s)
- BESS; and
- Associated infrastructure.

The SEF is intended to evacuate power to the grid. Part of the design development will be to determine the best option to charge the BESS, either with grid power or power generated from PV.

The total site area for PV installation is approximately 157 hectares to allow for the construction of a PV facility with an AC capacity of up to 100 MW. Solar PV modules which convert solar radiation directly into electricity, will occupy a space of up to a total of approximately 720,000 m^2. The solar PV modules will be elevated above the ground and will be mounted on either fixed tilt systems or tracking systems (comprised of galvanised steel and aluminium). The Solar PV modules will be placed in rows in such a way that there is allowance for a perimeter road and security fencing along the boundaries, and O&M access roads in between the PV module rows.

The three on site substations will be established within and around the extent of the Solar Site A1 & A2 and Solar Site B. The site itself is very homogenous and there are no significant features in the immediate vicinity of the substation location that might be affected by the development. The following infrastructure is proposed but will be confirmed during the design stage:

- O&M buildings housing the control and communication equipment;
- All the access road infrastructure within the substation sites; and
- Site substations and collector substations to consolidate and distribute power to the connection points.

The project area and surrounding areas are already easily accessible due to existing access roads. New access roads or tracks may be required to provide access to sections of the powerline route. Access roads will be mostly a two-track gravel road under the OHPL in order to access pylons for construction and maintenance purposes. The width of the access roads will be determined during the design phase. Eskom proposes to expand on the established BESS Area A facility within the existing footprint of the Komati Power Station. The approved BESS footprints range from 2 ha up to 6 ha, depending on design and optimisation of the site and technology selected. The BESS capacity is envisaged to be 150 MW with four hours standby time. It is proposed that Lithium Battery Technologies, such as Lithium Iron Phosphate, Lithium Nickel Manganese Cobalt oxides or Vanadium Redox flow technologies will be considered as the preferred battery technology however the specific technology will only be determined following Engineering, Procurement, and Construction (EPC) procurement. The main components of the BESS include the batteries, power conversion system and transformer which will all be stored in various rows of containers. The BESS components will arrive on site pre-assembled. The specifics of the technology to be used (i.e. brand and country of origin) will be provided in the EIA.

The additional ancillary infrastructure will be confirmed once the Conceptual Design is complete, however, it is anticipated that the following will be applicable:

- Access roads;

- Perimeter roads;
- Below ground electrical cables;
- Above ground overhead lines;
- Meteorological Station;
- Operations and Maintenance (O&M) Building including control room, server room, security equipment room, offices, boardroom, kitchen, and ablution facilities);
- Spares Warehouse and Workshop;
- Hazardous Chemical Store;
- Security Building;
- Parking areas and roads;
- Temporary laydown areas;
- Temporary concrete batching plant
- Construction camps and temporary laydown areas; and
- Onsite substations.

Figure 1: Locality Map (courtesy WSP).

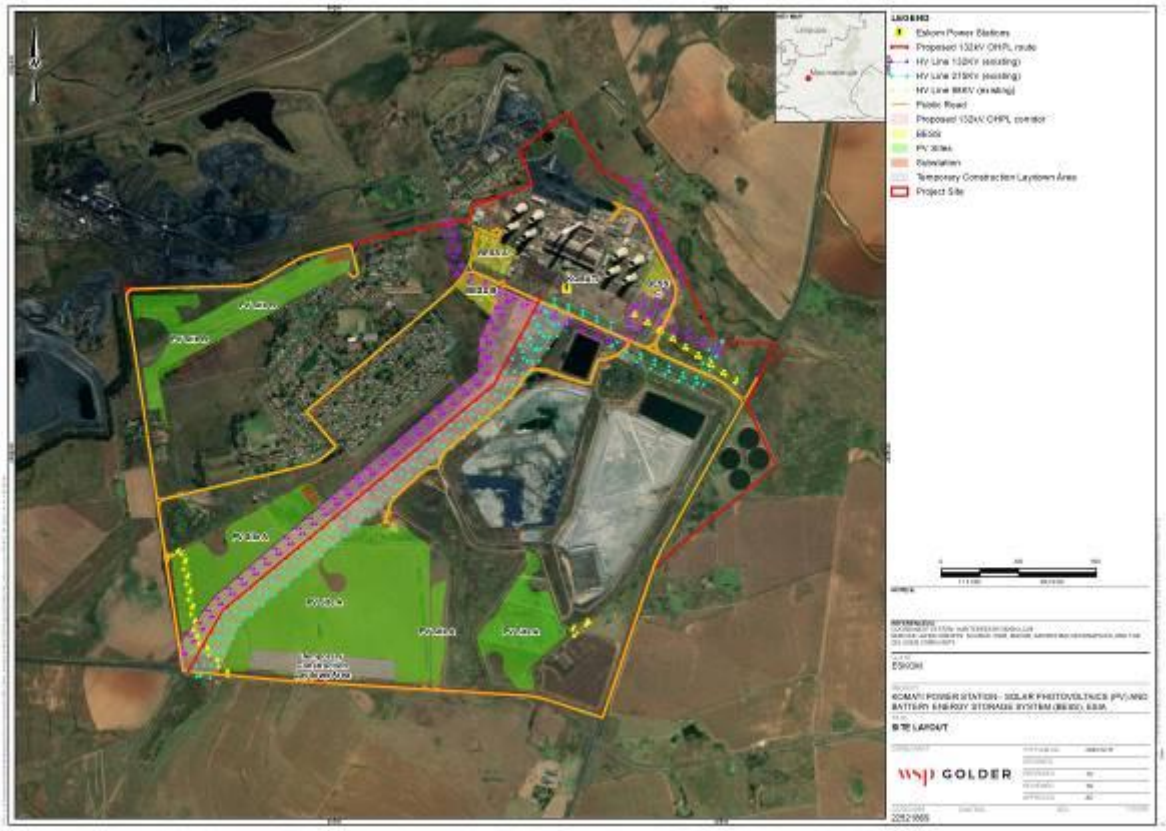

Figure 2: Final Approved Layout (courtesy WSP). The original area approved in the EA for the BESS area is within the blue polygon and the additional area that requires an amendment to the approved in EA is within the red polygon (expansion/extension) area. The green (Komati 275kV yard), orange and purple (existing powerhouse building) polygons are existing infrastructure demarcations at the Komati Power Station (courtesy WSP).

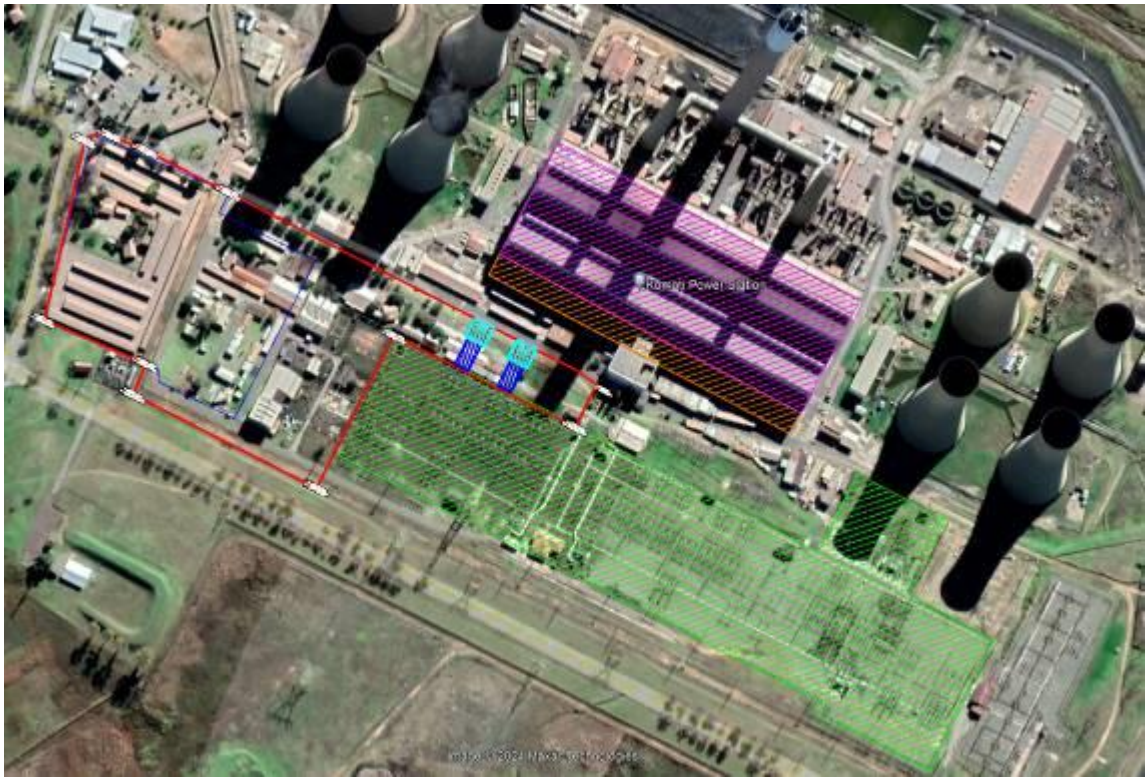

Figure 3: BESS Area A expansion (courtesy WSP).

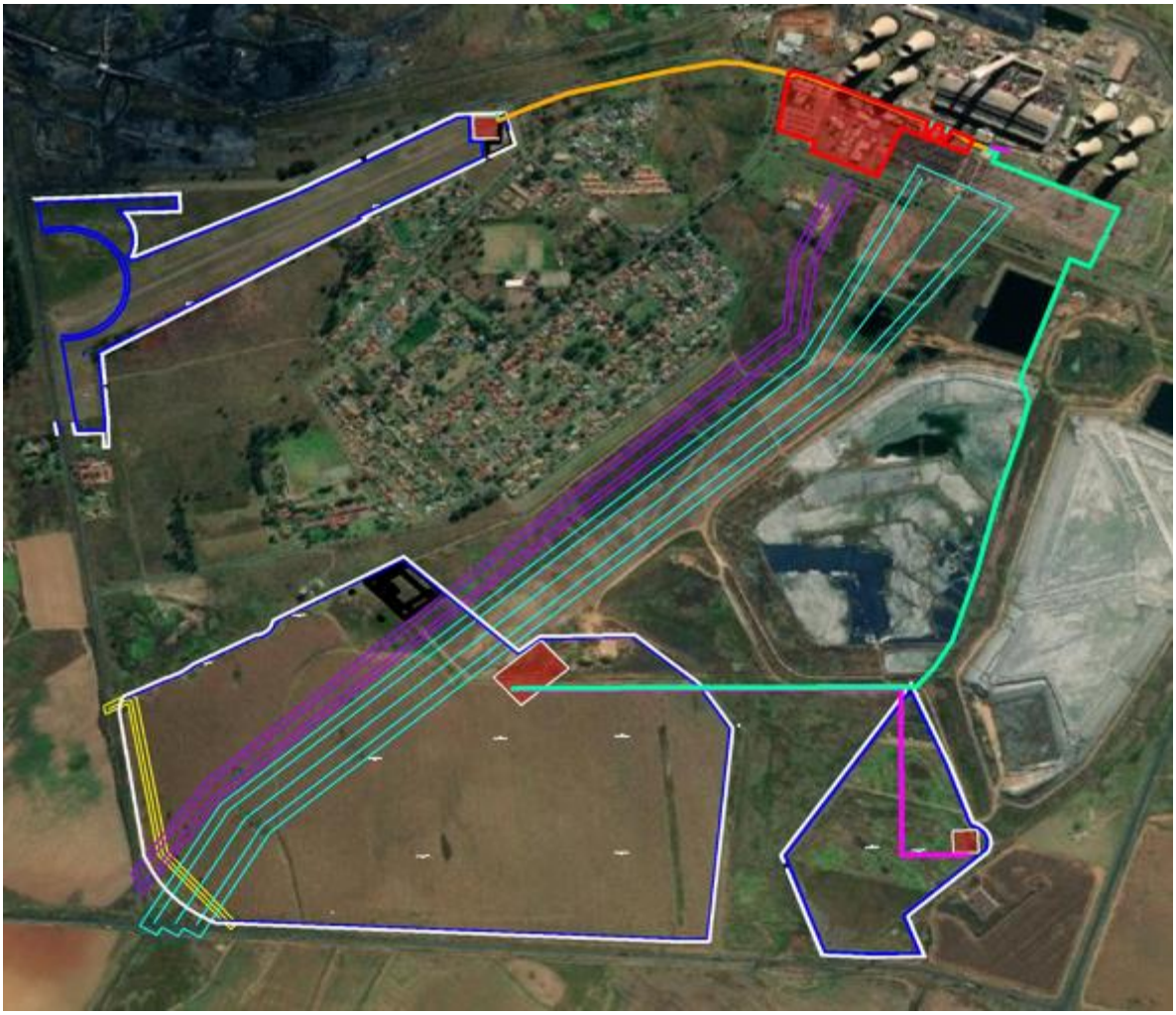

Figure 4: Proposed Amended Infrastructure Layout (courtesy WSP).

Figure 5: Closer view of the study & proposed SEF development areas (PV A in red & PV B in green). This is the area assessed in May 2023 and corresponds largely with the area for the proposed amendments (Google Earth 2023).

Relevant Legalisation

Aspects concerning the conservation of cultural resources are dealt with mainly in two Acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

The National Heritage Resources Act (Act 25 of 1999)

According to the Act the following is protected as cultural heritage resources:

a. Archaeological artefacts, structures and sites older than 100 years;
b. Ethnographic art objects (e.g., prehistoric rock art) and ethnography;
c. Objects of decorative and visual arts;
d. Military objects, structures and sites older than 75 years;
e. Historical objects, structures and sites older than 60 years;
f. Proclaimed heritage sites;
g. Grave yards and graves older than 60 years;
h. Meteorites and fossils; and
i. Objects, structures and sites of scientific or technological value.

The National Estate includes the following:

a. Places, buildings, structures and equipment of cultural significance;
b. Places to which oral traditions are attached or which are associated with living heritage;
c. Historical settlements and townscapes;
d. Landscapes and features of cultural significance;
e. Geological sites of scientific or cultural importance;
f. Sites of Archaeological and palaeontological importance;

g. Graves and burial grounds;
h. Sites of significance relating to the history of slavery; and
i. Movable objects (e.g., archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.).

The Heritage Impact Assessment (HIA) process is done to determine whether there are any heritage resources located within the area to be developed as well as to determine the possible impacts of the proposed development. An Archaeological Impact Assessment (AIA) only looks at archaeological resources, such as material remains of human life or activities which are at least 100 years of age, and which are of archaeological interest. A HIA must be done under the following circumstances:

a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
b. The construction of a bridge or similar structure exceeding 50m in length
c. Any development or other activity that will change the character of a site and exceed 5 000m2 or involve three or more existing erven or subdivisions thereof
d. Re-zoning of a site exceeding 10 000m2
e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34(1) of the Act state that no person may demolish any structure or part thereof that is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure refers to any building, works, device or other facility made by people, and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

To alter means any action taken that affects the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

Archaeology, palaeontology, and Meteorites

Section 35(4) of the Act deals with archaeology, palaeontology, and meteorites. The Act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite; or
d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites.
e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

a. ancestral graves

b. royal graves and graves of traditional leaders
c. graves of victims of conflict
d. graves designated by the Minister
e. historical graves and cemeteries
f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

i. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

ii. destroy, damage, alter, exhume, or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or

iii. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the Ordinance on Excavations (Ordinance no. 12 of 1980) (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province, and local police. Furthermore, permission must also be gained from the various landowners (i.e., where the graves are located and where they are to be relocated to) before exhumation can take place.

Human remains can only be handled by a registered undertaker, or an institution declared under the Human Tissues Act (Act 65 of 1983 as amended).

The National Environmental Management Act (No. 107 of 1998)

This Act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

The specific requirements that specialist studies and reports must adhere to are contained in Appendix 6 of the EIA Regulations.

Heritage Statement - Komati Power Station Solar Photovoltaic Facility, Battery Energy Storage Systems and Associated Infrastructure Amendments

Based on the scrutiny of aerial images (Google Earth) of the study and proposed development parcels, as well as the field-based study undertaken in May 2023, it was clear that the area had been heavily impacted by development of the existing Power Station & its related infrastructure, residential & related developments as well as agricultural activities. The larger geographical area within which the study and proposed development areas are located have also been impacted by mining. The original natural and historical landscape has been severely altered through these activities and if any sites, features or material of cultural heritage (archaeological and/or historical) significance or origin were present here in the past it would have been extensively disturbed or destroyed as a result.

The topography of the study and development area is relatively flat and open, with no rocky outcrops, ridges or hills present. Large portions of the study and proposed development area has been utilized in the past (and currently) for agricultural activities (ploughing and crop growing). The largest impact on the area however has been the development and use of the Komati Power Station, its related infrastructure, Ash Discard Dump and the town of Komati (residential and related developments). Eskom Powerlines and Servitudes have also impacted on the area.

It should be noted that the May 2023 field-based assessment focused on the affected study area, but also look at the wider area around the Komati Power Station, which included the areas encompassing the proposed amendments. Additional field work in these areas – from a Cultural Heritage perspective – will therefore not be required.

It was evident from the 2023 desktop study that archaeological/historical sites and finds do occur in the larger geographical landscape within which the specific study area is located. Based on this it is always possible that open-air Stone Age sites could be found in the area, in the form of individual stone tools or small scatters of tools if present. The possibility of Iron Age sites in the area is highly unlikely with no rocky outcrops, ridges and hills present. The likelihood of recent historical sites and features being present in the area is also low, although this could not be excluded. If any were to be present, it would most likely be remnants of homesteads and unknown/unmarked graves. During a 2007 Heritage Survey for the Komati Power Station Ash Dam Extension (on the farm Komati Power Station 58IS, a subdivision of the original farm Koornfontein 27IS), no Stone Age, Iron Age or recent historical sites, features or material were identified in the area (Van Schalkwyk 2007: 4).

During the May 2023 field assessment, no sites, features or material of cultural heritage (archaeological and/or historical) origin or significance were identified in the study and proposed development area. The planned Komati Power Station PV/BESS development and related infrastructure is located in already heavily disturbed areas and the likelihood of any cultural heritage sites or features being located here is very low. The often-subterranean nature of archaeological and/historical sites and features should however always be taken into consideration and there is always a possibility of these occurring in an area earmarked for development. This could include unmarked or unknown graves or burials.

The DFFE Screening Tool also indicated a Low Sensitivity for Archaeological and Cultural Heritage. The 2023 desktop research and physical field-based assessment confirmed this low sensitivity and that there are no sensitive heritage features in the study and proposed development area.

The impact of the proposed development on the recorded and known cultural heritage sites in the area was deemed as Neglible based on the Impact Assessment criteria used. However, there is always a possibility of sites, features and material being missed as a result of various factors such as vegetation cover hampering visibility on the ground, as well as the often-subterranean nature of cultural heritage resources (including low stone-packed or unmarked graves). These factors need to be taken into consideration and it was therefore also recommended that a Chance Finds Protocol be drafted and implemented for the proposed Eskom Komati Power Station Solar PV/BESS Development. This will ensure that, should any previously unknown and unrecorded sites, features and cultural material deposits be exposed during any development activities, that these could be investigated by a Heritage Specialist in order to provide recommendations on their significance and on the way forward in terms of possible mitigation measures.

Heritage Cumulative Impact Statement

Several renewable energy developments exist within the surrounding area which have submitted applications for environmental authorisation (some of which have been approved). It is however important to note that the existence of an approved EA does not directly equate to actual development of the project. The projects within 30 km of the proposed Komati Solar Facility include the Proposed installation of a Solar photovoltaic power plant at ESKOM Duvha power station and the Proposed Forzando North Coal Mine photovoltaic solar facility in the Emalahleni Local Municipality, Mpumalanga Province (courtesy WSP Group Africa (Pty) Ltd (WSP)).

With no sensitive cultural heritage resources existing in the Komati Power Station proposed SEF project area, the cumulative heritage impacts of these other projects will be non-existent. It does need to be mentioned that this statement in no way claims that there are no sites of cultural heritage origin or significance located at or in close proximity to these other project areas.

To conclude, based on the results of the previous 2023 Phase 1 Heritage Impact Assessment conducted in the area, that the likelihood of any significant cultural heritage (archaeological and/or historical) sites, features or material being present in the additional areas forming part of the proposed expansion (amendment) work for the Solar PV/BESS and Associated Infrastructure is low. No further field-based assessments is therefore recommended. The proposed amendments will not have any affect on the previous impacts and no additional mitigation measures are required. The recommended CFP should however be drafted and implemented as required in the 2023 HIA Report.

Should there be any questions or comments on the contents of this document please contact the author as soon as possible.

Kind regards

Anton Pelser

References

1. General & Closer Views of Study & Proposed Development Area footprint: Google Earth 2023/4.

2. Locality/Layout Plans & Images: courtesy WSP Group Africa (Pty) Ltd.

3. Background Information/Project Description: courtesy WSP Group Africa (Pty) Ltd.

4. Van Schalkwyk, J.A. 2007. **Heritage Survey report for the Komati Power Station Ash Dam Extension, Middelburg Magisterial District, Mpumalanga Province**. Unpublished Report 2007/JvS/057. For: Synergistics. November 2007.

5. Pelser, A.J. 2023. **A Phase 1 Heritage Impact Assessment Report for the ESKOM Komati Power Station Solar Energy Facility (SEF) Mpumalanga Province.** Unpublished Report APelser Archaeological Consulting cc APAC023/55. For: WSP Group Africa (Pty) Ltd. June 2023.

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8. Republic of South Africa. 1999. National Heritage Resources Act (No 25 of 1999). Pretoria: The Government Printer.

9. Republic of South Africa. 1998. National Environmental Management Act (no 107 of 1998). Pretoria: The Government Printer.