

Jaco van der Walt BA (Pret) BA (Hons)
(Archaeology) [Wits], MA (Archaeology [Wits])

Cell: 082-373-8491.
E-mail: jaco.heritage@gmail.com.
Website: www.heritageconsultants.co.za



Reg no. 2007/224785/23
VAT no. 4660218696

Private Bag X1049
Suite 34
Modimolle
0510

Attention: Reuben Maroga

Reference: **Sirius Solar PV Project Two Part 2 Amendment, Northern Cape Province**

RE: HERITAGE STATEMENT – PROPOSED BATTERY ENERGY STORAGE SYSTEM (BESS) OF UP TO 4.5MWH, AND AN INCREASE OF THE CONTRACTED CAPACITY OF THE AUTHORISED SIRIUS SOLAR PV PROJECT TWO BY 75MW.

1. Introduction

Sirius Solar PV Project Two RF (Pty) Ltd is proposing the construction and operation of a Battery Energy Storage System (BESS) of up to 4,5 GWh, as well as an increase of the contracted capacity of the authorised Sirius Solar PV Project Two by 75MW within the authorised footprint. The authorised facility is located 21km south-west of Upington in the Northern Cape Province (Figure 1). The project is located within the Upington Renewable Energy Development Zone (REDZ), within the Kai !Garib Local Municipality and the ZF Mgcawu District Municipality in the Northern Cape Province. The general purpose and utilisation of Battery Energy Storage System (BESS) is to save and store excess electrical output as it is generated, allowing for a timed release when the capacity is required. BESS systems therefore provide flexibility in the efficient operation of the electric grid through decoupling the energy supply and demand'. HCAC was appointed to review the proposed amendment against the heritage impact assessment (Gaigher 2013) conducted for the project (SAHRA Case ID 1884).

2. Project detail

The development area for the battery energy storage area is ~ 18ha and is proposed within the area assessed and approved for the PV facility by Gaigher (2013). The battery energy storage will include the following infrastructure:

- » Lithium-ion, Lithium Iron Phosphate, Sodium Sulphur, or Vanadium Redox batteries in a container with a footprint of 6.5ha and a maximum height of up to 2.8m; and
- » Multi-core, 33kV underground cables to connect the battery energy storage to the authorised on-site facility substation of Sirius Solar PV Project Two.

3. Heritage Opinion

Several previous heritage studies were conducted in the general study area (SAHRIS) (Beaumont 2005 & 2008, Van Ryneveld 2007a & 2007b, Dreyer 2006, Van Schalkwyk 2011, Gaigher 2012, van der Walt 2014, 2018 a and b and 2019, Morris 2012, Fourie 2014) and the heritage baseline of the wider area is well described. Of interest to the study area is the recent discovery of the Later Stone Age (LSA) Kite-like structures associated with animal exploitation to the north west and outside of the study area (van der Walt and Lombard 2018).

The area identified for the BESS was covered and assessed during the HIA for the project (Gaigher 2013) and the study concluded that the project could go ahead as the impact of the project on heritage resources is not considered to be significant. Three archaeological sites was recorded but these are located away from the proposed BESS (Figure 1).

The BESS area will be accommodated entirely within the authorised footprint and does not encroach into any of the spatially sensitive features identified during the Environmental Assessment Process. The addition of the BESS will not have an adverse impact on the recorded heritage resources. The final impact of the proposed amendment on heritage resources will remain unchanged from the original impact assessment and is considered to be of low significance. This statement is based on the assumption that the footprint area was sufficiently covered during the original assessment conducted for the project (Gaigher 2013).

Jaco van der Walt BA (Pret) BA (Hons)
 (Archaeology) [Wits], MA (Archaeology [Wits])

Cell: 082-373-8491.
 E-mail: jaco.heritage@gmail.com.
 Website: www.heritageconsultants.co.za



Reg no. 2007/224785/23
 VAT no. 4660218696

Private Bag X1049
 Suite 34
 Modimolle
 0510

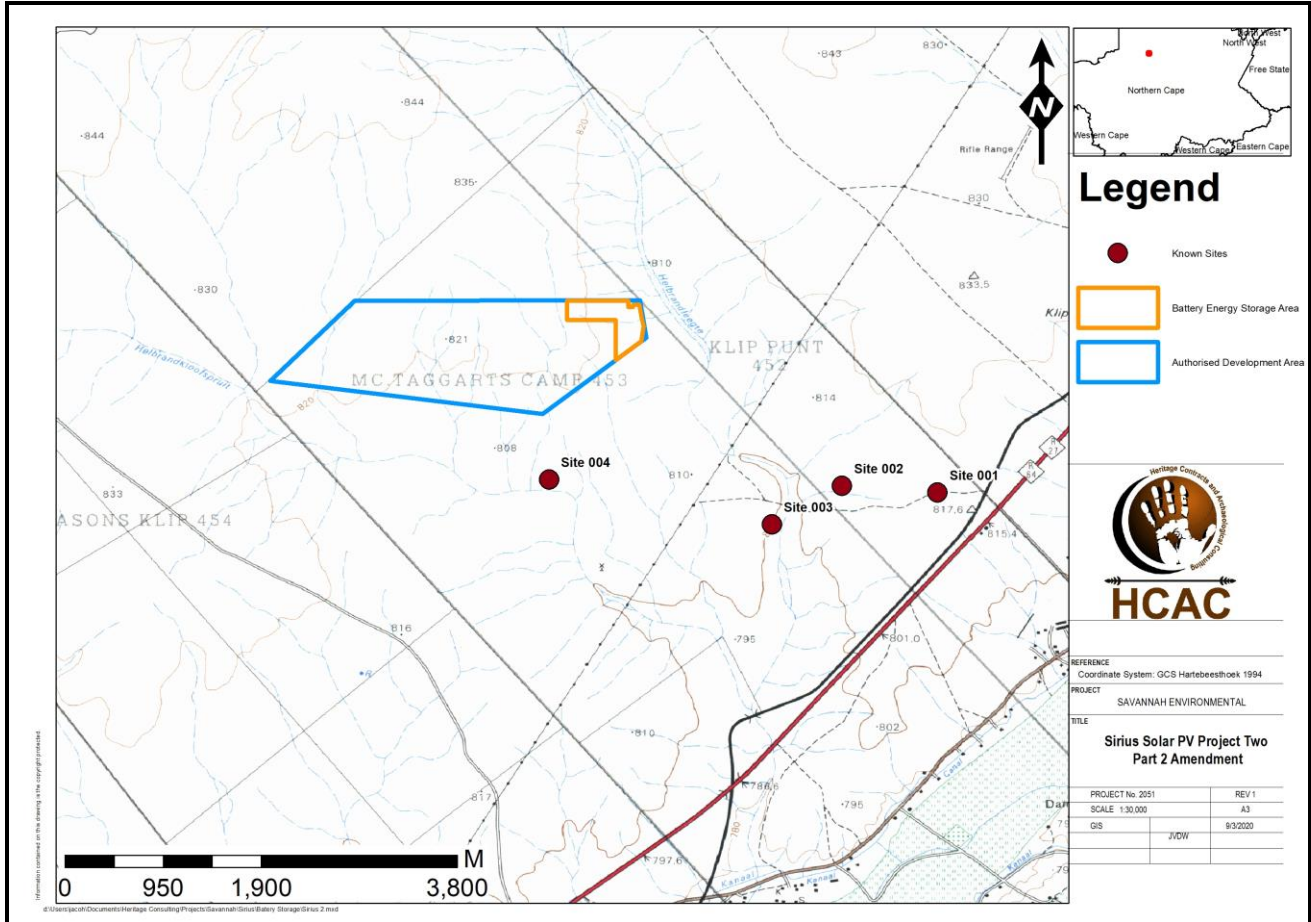


Figure 1. Revised layout indicating the proposed BESS within the authorised footprint as well as the recorded heritage sites.

Jaco van der Walt BA (Pret) BA (Hons)
(Archaeology) [Wits], MA (Archaeology [Wits])

Cell: 082-373-8491.
E-mail: jaco.heritage@gmail.com.
Website: www.heritageconsultants.co.za



Reg no. 2007/224785/23
VAT no. 4660218696

Private Bag X1049
Suite 34
Modimolle
0510

4. Conclusion

Based on the findings of the 2013 heritage assessment there is no objection to the approval of the proposed amendment for the following reasons:

- The inclusion of a BESS in the authorised area will not change the nature or significance of the impacts assessed in the 2013 study;
- The BESS is unlikely to result in any additional impacts that was not previously assessed and;
- Any new developments outside the authorised footprint will need to be assessed by a heritage specialist;
- No additional management or mitigation measures over and above the recommendations made in the 2014 SAHRA comments and the EMP are applicable to the BESS.

The proposed amendment remains subject to approval from SAHRA.

Kindly contact me with any queries or concerns.

Sincerely

Jaco van der Walt

Jaco van der Walt BA (Pret) BA (Hons)
(Archaeology) [Wits], MA (Archaeology [Wits])

Cell: 082-373-8491.
E-mail: jaco.heritage@gmail.com.
Website: www.heritageconsultants.co.za



Reg no. 2007/224785/23
VAT no. 4660218696

Private Bag X1049
Suite 34
Modimolle
0510

References

- Beaumont, P.B. 2005. Archaeological Impact Assessment at and in the Vicinity of a Quartzite Quarry on Portion 4 of the Farm Droogehout 442 near Upington.
- Beaumont, P.B. 2008. Phase 1 Heritage Impact Assessment Report on a Portion of the Farm Keboes 37, near Kanoneiland, Siyanda District Municipality, Northern Cape Province.
- Dreyer, C. 2006. First Phase Archaeological and Cultural Heritage Assessment of the Proposed Concentrated Solar Thermal Plant (Csp) at the Farms Olyvenhouts Drift, Upington, Bokpoort 390 and Tampansrus 294/295, Groblershoop, Northern Cape.
- Fourie 2014. Heritage Impact Assessment for the proposed Solar Power Park for SolarReserve SA (Pty) Ltd, Farm Rooipunt 617, Gordonia RD, Siyanda District Municipal Region, Northern Cape
- Gaigher, S. 2012. Heritage Impact Assessment, Basic assessment report for the proposed establishment of the grid integration infrastructure for sites 1.1, 1.2, 1.3 and 2, as part of the larger Karoshoek Valley Solar Park, on a site located 30 km East of Upington, Northern Cape Province. Unpublished report for Savannah Environmental (Pty) Ltd.
- Morris, D. 2012. Archaeological Impact Assessment for Blocuso. Unpublished report.
- National Heritage Resources Act NHRA of 1999 (Act 25 of 1999)
- SAHRA Report Mapping Project Version 1.0, 2009
- Van der Walt, J. 2015. Archaeological Impact Assessment report For the proposed AEP Bloemsmond Solar 1 PV project, Keimoos, Northern Cape. Unpublished report for Savannah Environmental (Pty) Ltd.
- Van der Walt, J. 2019a. Heritage Impact Assessment Sirius Solar PV Project 3, Upington, Northern Cape Province. Unpublished report for Savannah Environmental (Pty) Ltd.
- Van der Walt, J. 2019b. Heritage Impact Assessment Sirius Solar PV Project 4, Upington, Northern Cape Province. Unpublished report for Savannah Environmental (Pty) Ltd.
- Van der Walt, J. 2019c. Heritage Impact Assessment Bloemsmond 3, Upington, Northern Cape Province. Unpublished report for Cape EA Prac.
- Van der Walt, J. 2019d. Heritage Impact Assessment Bloemsmond 4, Upington, Northern Cape Province. Unpublished report for Cape EA Prac.
- van der Walt, J. and Lombard, M., 2018. Kite-like structures in the Nama Karoo of South Africa. *Antiquity*, 92(363).
- Van Ryneveld, K. 2007a. Phase 1 Archaeological Impact Assessment -Portion of the Farm Cnydas East 439, Upington District, Northern Cape, South Africa.
- Van Ryneveld, K. 2007b. Phase 1 Archaeological Impact Assessment -Portion of the Farm Bokspuits 118, Groblershoop District, Northern Cape, South Africa.
- Van Schalkwyk, J. 2011. AIA for Karoshoek Solar Park. Unpublished report.