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Your ref: Case ID 8370

Mr Phillip Hine
SAHRA
P O Box 4637
Cape Town, 8000

Dear Mr Hine

RE: SAHRA Case ID8370: request for a Palaeontological Impact Assessment for the proposed CSP and PV plants on the farm Sand Draai, near Groblershoop, Northern Cape Province

As requested by Mr Johan Blignaut of Royal HaskoningDHV (Pty) Ltd, a desktop palaeontological impact assessment has been done for the farm Sand Draai because SAHRA recommended that such a study be done (Case ID 8370).

Solafrica Energy (Pty) Ltd propose to construct two CSP (based on Central Receiver and Parabolic Trough technologies) and a PV plant on the farm Sand Draai, near Groblershoop, Northern Cape. Solafrica Energy (Pty) Ltd ("Solafrica") proposes the development of two Concentrated Solar Power plants and a Concentrated Photovoltaic plant with a combining generating capacity of 425MW, on the farm Sand Draai 391 in the Siyanda District of the Northern Cape.

Findings of the PIA

The site for the proposed CSP and PV plant lies on Quaternary alluvium (Kalahari sands) just to the north east of the Orange River (Figure 2, Table 1), and also on the Uitdaai and Groblershoop Formations which comprise quartzites, sandstone and schists, i.e. of ancient volcanic origin and also metamorphosed, so they are most unlikely to contain any fossil material. Sands and alluvium rarely contain fossils in any context.

According to the SAHRIS palaeosensitivity map there is a small area of high sensitivity (<http://www.sahra.org.za/sahris/map/palaeo>) in the loop of the Orange River immediately to the southeast of this site, in the region of the farm Spitzkop. The

sediments on this farm are also Groblershoop Formation and Kalahari sands and there is no published record of fossils from this area (Almond and Pether, 2009). It is, therefore, highly unlikely that fossils would be found on the farm to the north west, Sand Draai where the CSP and PV plants are planned.

Recommendation

If, in the unlikely event that fossil plant or animal material is discovered during the construction of the CSP and PV plants, then it is strongly recommended that a professional palaeontologist be called to assess the importance and rescue the fossils if necessary (with the relevant SAHRA permit).

If the fossil material is deemed to be of scientific interest then further visits by a professional palaeontologist would be required to collect more material. Only when the excavations for foundations have commenced will it be possible to see if there are any fossils beneath the alluvium.

Therefore, as far as the palaeontological heritage is concerned, the construction of the proposed plants on the farm Sand Draai, may proceed. No further palaeontological assessments are required at this stage.

If you need any clarification please do not hesitate to contact me.

Yours sincerely



Prof Marion Bamford
Palaeobotanist
Evolutionary Studies Institute