

**NATURA VIVA cc**  
**Palaeontological Impact Assessments & Heritage Management,**  
**Natural History Education, Tourism, Research**

**PROTEA SOLAR POWER PLANT (PTY) LTD.**

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**4 December 2020**

**To whom it may concern:**

**SPECIALIST INPUT FOR THE PART 2 AMENDMENT OF THE ENVIRONMENTAL  
AUTHORISATION (EA): AS PART OF THE PROTEA PHOTOVOLTAIC (PV) SOLAR  
POWER PROJECT NEAR VRYURG IN THE NORTH WEST PROVINCE**

1. The Palaeontological Heritage Assessment as part of the Environmental Impact Assessment (EIA) conducted for the Protea Solar Power Plant (SPP) (DEA Ref: 14/12/16/3/3/2/914) on the Remaining Extent of the farm Hartsboom No. 734, Registration Division IN, North West Province, refers.
2. The Solar plant is said to be tendered to the Department of Mineral Resources and Energy (DMRE) in the latter half of 2020. However, to improve the desirability and efficiency of the proposed project, the following amendments are applied for in terms of the EIA Regulations, 2014 (as amended in 2017):
3. Inclusion of a battery storage system

The battery storage facility will be kept in standard shipment containers with an area of approximately 2ha. The battery to be installed will be lithium-ion and no electrolytes will be transported to and handled on site. Battery cells will be assembled at the supplier factory prior to delivery to the sites. The battery storage facility will be located within the already authorized PV plant footprint area. There will be no need for the additional clearance of more than 2 ha of vegetation for the development of a new area for the battery storage facility.

4. Increasing capacity of 115MWdc to up to 155MWdc  
Due to new and advanced technology of panels (470W and Bi-facial) the same amount of panels may be used as specified previously but will be able to generate more megawatts on the same area. The DMRE no longer caps projects at 75MW under the RMIPPPP, which means that developers may tender for larger capacity (if the grid can accommodate it).
5. Increasing the height of the panels  
Using new advanced panel technology will result in the increase in the height of the panels to approximately 6 meters.

6. Increasing the number of modules and inverters

Due to the increase in MWdc capacity, more inverters are needed to convert the increased DC capacity to AC. The minimum number of inverters will be increased from 34 to a minimum of ~50. The number of modules will be ~370 000 each 415 watt-peak (Wp).

7. Amending the location of inverters, buildings and internal roads within the development footprint (revised layout)

Due to the increase of capacity (MW), inclusion of battery storage and the spacing between panels, a new layout had to be designed which changed the citing of the infrastructure as well as the sizes of the demarcated areas for the associated infrastructure.

8. I hereby confirm that the proposed amendments will not result in any additional impacts and will not increase the level or nature of the impact regarding palaeontological heritage resources that were initially assessed and considered when application was made for an EA. The significance ratings will remain unchanged and the proposed mitigation and management measures proposed as part of the EIA process will still suffice.

9. We trust you find the above in order. If there are any uncertainties or additional information required, please feel free to contact the undersigned.

Yours faithfully,



**Dr John E. Almond**  
**(Palaeontologist)**  
*Natura Viva cc*