J A van Schalkwyk Heritage Consultant 62 Coetzer Avenue, Monument Park Pretoria 0181

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# SONNEBLOM SOLAR POWER PLANT (RF) (PTY) LTD.

[Per e-mail: <a href="mailto:berlijn@subsolar.co.za">berlijn@subsolar.co.za</a> & venter@subsolar.co.za]

#### To whom it may concern:

SPECIALIST INPUT FOR THE PART 2 AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION (EA): AS PART OF THE SONNEBLOM PHOTOVOLTAIC (PV) SOLAR POWER PROJECT NEAR BLOEMFONTEIN IN THE FREE STATE PROVINCE

- 1. The 2014 Cultural heritage assessment, as part of the Environmental Impact Assessment (EIA) conducted for the Sonneblom Solar Power Plant (SPP) (DEA Ref: 14/12/16/3/3/2/673) on Portion 1 of the farm Blydschap No. 504, Registration Mangaung Metropolitan Municipality, refers.
- 2. The 2014 study and 2020 specialist conformation letter as part of the Environmental Authorisation Amendment process (DFFE Ref: 14/12/16/3/3/2/673AM4) has been reviewed as part of this specialist input.
- 3. The Solar plant is said to commence with construction during February 2023. However, to optimize the proposed project, the following amendments are applied for in terms of the EIA Regulations, 2014 (as amended in 2017):

## • Expansion of battery storage area

A Battery Storage Facility with multiple battery containers of 6m height and 200m³ volume per container and inverters and MV/LV transformers between the containers will be installed. Each container will have battery racks and required control and protection systems. The capacity of the battery storage facility per project will be kept in standard shipment containers or smaller containers ("blocks") as might be proposed by selected supplier with an area of approximately 4ha instead of the anticipated 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 2ha of vegetation for the development of the expanded area for the battery storage facility.

## Increasing capacity of the plant to up to 115MWdc

Due to new and advanced technology of panels (470W and Bi-facial) the same amount, or less panels may be required to generate more megawatts on the same area. The Sonneblom SPP will however not utilize the authorized 115MW and will therefore reduce the generation capacity to 60MWdc and 45MWac.

### • Increase in panel height

The solar PV panel height will increase from 3.5m to 4.5m.

- Amending the location of inverters, buildings and internal roads within the development footprint (revised layout)
  - Due to the capacity (MW) reduction, expansion 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 (the substation, connection line corridor, laydown area, office, staff room and security room).
    - O&M footprint (Within footprint of ~0.7 ha)
    - Laydown area and construction site camp (Within footprint of ~3 ha)
    - Increase BESS footprint (Within footprint of ~4 ha)
    - Additional BESS Substation (Within footprint of ~0.3 ha)
    - Substation footprint (Within footprint of ~1 ha)
    - New Connection line corridor.
- We hereby confirm that the proposed amendments will not result in any additional impacts and will not increase the level or nature of the impact, which was initially assessed and considered when application was made for an EA and subsequent amendments. The significance ratings will remain unchanged, and the proposed mitigation and management measures proposed as part of the EIA process will still suffice.
- 5. We trust you find the above in order. If there are any uncertainties or additional information required, please feel free to contact the undersigned.

J A van Schalkwyk (D Litt et Phil)

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 Heritage Consultant: ASAPA Registration No.: 164 - Principal Investigator: Iron Age, Colonial Period, Industrial Heritage.













