From: Morné de Jager
To: alicia@hunadigroup.co.za
Subject: RE: Ergo Mine PV- Noise opinion (DRD Project)
Date: Tuesday, 13 July 2021 12:16:02

Hi Alicia

Sorry about that. As far as I know, substations and BESS do not need a noise study (as per the screening report, GNR 320). Such facilities does not generate significant noise levels and this theme is of least concern. I would not recommend any noise work.

Should you have any questions or comments, please do not hesitate to contact me. Also ensure that the replies, or emails are directed to menco.morne.dejager@gmail.com as I lose a significant number of emails going to morne@eares.co.za which my server provider just cannot seem to resolve.

Regards

Morné de Jager
082 565 4059

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Members: M de Jager, J Mare, P Erasmus

From: alicia@hunadigroup.co.za <alicia@hunadigroup.co.za>
Sent: Tuesday, 06 July 2021 10:35
To: 'Morné de Jager' <menco.morne.dejager@gmail.com>
Subject: Ergo Mine PV- Noise opinion (DRD Project)

Hi Morne

NB: Phase 1: up to 20MW PV facility with 100MWh battery storage and 22kV Overhead Line (OHL) (BAR)
Phase 2: adjacent 40MW PV (near future scoping and EIA)

As discussed this morning, we need a specialist opinion for noise please for the proposed Ergo Solar Energy Facility (Phase 1). I have attached the following files:

- Preferred power line route ("DRD Gold PV OHL")
- PV layout
    - Battery storage indicated as "BESS"(Battery Energy Storage System). The substation is located next to the BESS.
- Maps
    - Layout plan (alternate and preferred layouts assessed: for PV and OHL)
    - Site plan for PV facility

Use this link should you need to access the latest specialist reports.
https://www.dropbox.com/home/Development%20DRD/EIA%20Work%2020%20MW%20%26%20MV%20Works%20%26%20100%20MWH%20Battery%20Storage/Specialist%20studies/21.05%20revise

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Please advise costing. We need this noise opinion fairy soon. (this week if possible)

PROJECT BACKGROUND *(extracted from Visual Report)*

Tshedza 1 Pre Project Development (Pty) Ltd is proposing the construction of a photovoltaic (PV) solar energy facility (SEF) at the Ergo Mining Brakpan Plant located in the Ekurhuleni Metropolitan Municipality of the Gauteng Province. The site is located approximately 6km south of the Brakpan central business district. The SEF will comprise two arrays (two blocks) of PV panels and will have a contracted capacity of up to 19.9MW. The electricity generated is intended to supply the Ergo Mining Brakpan Plant and the Brakpan/Withok Tailings Dam facility, but surplus electricity may be provided to other mines in the area.

A Basic Assessment (BA) process will be followed for the PV plant and will include an approximately 10km overhead power line (22kV) spanning from the Ergo Central 88/6.6kV substation at the mine, to the Ergo Transfer Pumps 88/11kV substation at the tailings dam. The power line will predominantly follow the existing slurry pipeline servitude located between the mine and the tailings dam.

The PV plant will be located on a portion of vacant land within the mining property that used to be a mine tailings dam. The property is currently zoned as mining and is entirely owned by ERGO Mining.

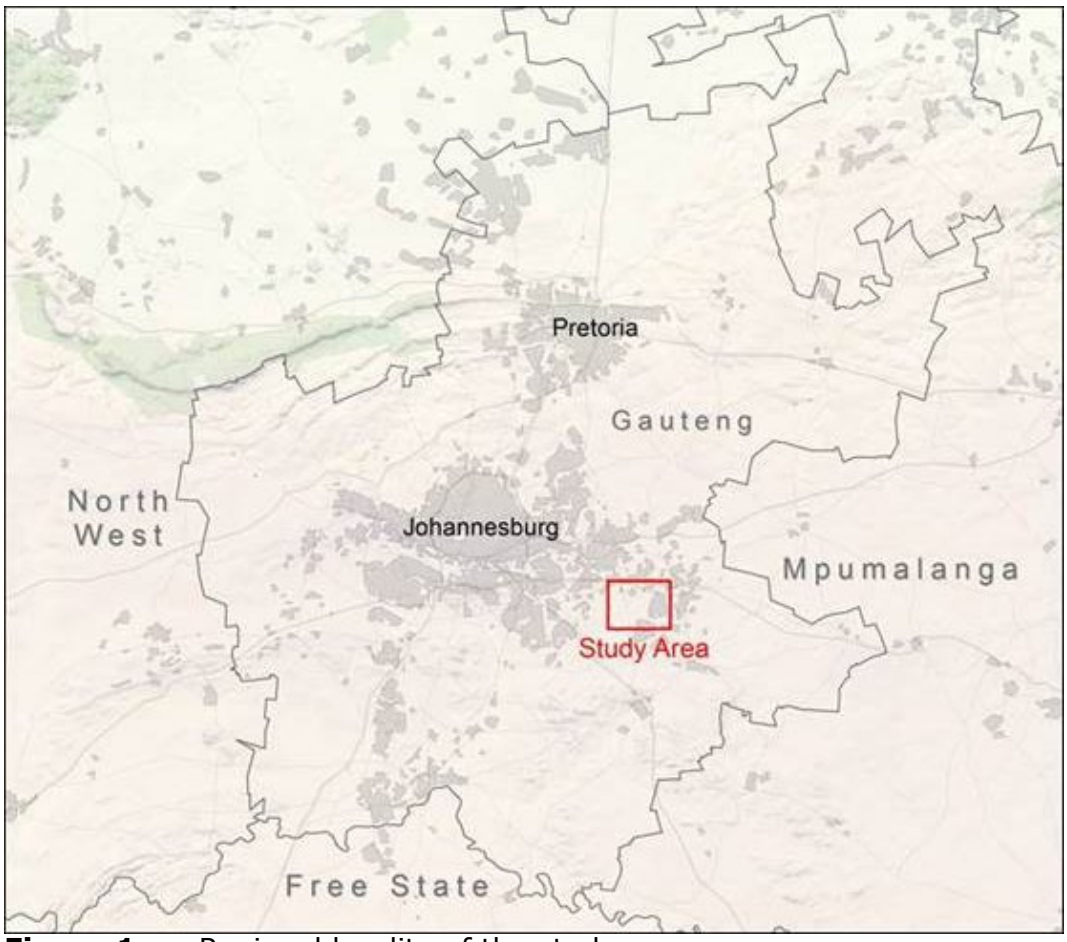

Figure 1: Regional locality of the study area.

Two alternatives are considered for the SEF and the power line.

Preferred Alternative
The development footprint for the PV arrays will be 42.5ha including the PV plant control centre, and an inverter station and smart transformer per block. The PV plant will also include up to 100MWh containerised battery storage.

Layout Alternative
The development footprint for the PV arrays will be 17ha including the PV plant control centre, and an inverter station and smart transformer per block. The PV plant will also include up to 100MWh containerised battery storage.

The infrastructure associated with this PV development includes:
Solar PV array footprint comprising of:

- PV modules and mounting structures
- Inverters and transformers
- Integrated Energy Storage System (IESS)
- Cabling between the project components
- Internal access roads

Access roads, internal distribution roads and fencing around the development footprint.

Admin block comprising of:

- Site offices and maintenance buildings, including workshop areas for maintenance and storage
- Assembly plant
- Laydown areas

Grid connection infrastructure:

- 22kV overhead power line (9.8km Preferred Alternative)
- 22kV overhead power line (10.1km Layout Alternative)

The PV plant facility will take approximately four months to construct and the operational lifespan of the facility is estimated at up to 30 years.

Kind Regards,
Alicia Govender | Director

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