ENVIRONAMICS
Environmental Consultants

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SOUTH AFRICAN HERITAGE RESOURCES AGENCY
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For attention: Mr. Dumisani Sibayi

8 August 2012

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

2. The developer has commissioned an Environmental Impact Assessment (EIA) process as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. The following activities are listed in GNR 545 and require Scoping & EIA to be conducted:

    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the existing substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 450m³ of water would be required per annum for the site.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp