



Background Information Document and Invitation to Comment

Environmental Impact Assessment for the Proposed Drennan Photovoltaic (PV) Solar Power Plant, Cradock, Eastern Cape Province

Scoping/EIA DEA Ref Number: 14/12/16/3/3/2/359

ERM Ref Number: 0166587

PURPOSE OF THIS DOCUMENT

Solairedirect Southern Africa (Propriety) Limited (hereafter referred to as Solairedirect) is proposing to construct a new Photovoltaic (PV) Solar Power Plant on the Genoegsaam Site, on the remaining extent of Farm Drennan (two preliminary development footprint options have been proposed, on Portion 39 of Farm 523 and Portion 0 of Farm 600 ('initial PV footprint'), as well as on Portions 15 and 16 of Portion 1 of the Farm Waai Plaats (no. 550) and Portion 39 of Farm 523 ('current PV footprint'), Cradock) Inxuba Yethemba Local Municipality, Eastern Cape (see attached map *Figure 5*). The aim of this Background Information Document is to provide stakeholders with information about the proposed Drennan Solar Park project as well as the associated Environmental Impact Assessment (EIA). This document outlines the required EIA Processes, associated Public Participation Process and provides stakeholders with initial project information. You are encouraged to register as an Interested and Affected Party (I&AP) so that you can be kept informed about the project throughout the EIA process.

Before construction on the Drennan Solar Park can begin, a full Scoping/Environmental Impact Assessment (EIA) must be undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended (NEMA) to obtain the necessary environmental authorisations.



Figure 1: Typical Photovoltaic Solar Park

Further documents will be available at various stages during the EIA process to provide stakeholders with more detailed information about the project and there will be further opportunities to ask questions, raise issues of concern and give suggestions for enhanced benefits. Stakeholders will also be given the opportunity to verify that their issues have been considered and to comment on various study findings. Thereafter, the findings, along with your comments will be submitted to the relevant authority, namely the National Department of Environmental Affairs (DEA) for consideration.

ERM's Role

Environmental Resources Management Southern Africa (Pty) Ltd (ERM) has been appointed by Solaire Direct to undertake the Environmental Impact Assessment (EIA) and associated Public Participation Process.

You are invited to register as an I & AP and to comment on this project .

Please complete the enclosed registration/comment sheet and/or contact:

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Project Description

The proposed total development includes the installation and operation of solar panels with a projected output of up to 90 MW at the Drennan Site, see map attached. The proposed 'current PV footprint' (refer to Figure 5), will have photovoltaic (PV) solar panel arrays that will occupy up to a maximum of 110 ha (1.1 km²). The PV arrays are mounted on aluminium frames that are then attached to screw-foot foundations or concrete foundations, depending on soil conditions. The PV arrays will face north in order to capture the maximum sunlight. Figure 2 shows a typical PV panel. The final design and detailed layout of the development will be based on a number of environmental, social and technical factors that will be explored in the EIA phase.



Figure 2: Typical Photovoltaic Panel

Construction: Prior to construction of the solar park the site would be prepared as necessary, this will include removing tall vegetation, creating access roads and preparing the foundations. Once the PV components have arrived on site, technicians would complete the assembly and test the facility. Construction of the facilities will be undertaken in phases over a period of 1 – 2 years.

Operation: It is anticipated that, once operational, the facility will generate up to 90 MW of electricity which will be fed into the national power grid. The key components of the proposed solar power plant include the following:



Figure 3: Drennan Traction Substation

PV Arrays - A number of PV arrays, as described above, will be arranged in rows that will cover the selected site and will be connected to one another by underground cables.

Electrical Connections - An inverter will connect to each row of PV panels to convert the direct current (DC) output to alternating current (AC). The inverters will be connected to a number of step-up transformers, which will convert the low voltage AC to a medium voltage suitable for distribution via a substation.

Substation and Grid Connection - There is an existing Eskom substation on the site (Figure 3) that would be used to connect the Drennan Solar Park to the national grid network.

Additional Support Infrastructure - Additional infrastructure on the site will include access roads for construction and maintenance

vehicles; a permanent solar irradiation measuring panel to collect data on the solar resource at the site; a small office and storage building with security and ablution facilities; and fencing around the site. Once the facility is complete and operational regular maintenance would be required to keep the PV cells in optimal working order.

Who is Solairedirect

Solairedirect is a solar photovoltaic (PV) developer, contractor and operator founded in 2006 and based in Paris & Aix-en-Provence (France). The company's current South African interest is a manufacturing facility in Cape Town (South Africa) that was commissioned in early 2009, and currently has a number of solar photovoltaic projects under development. It is a vertically integrated power producer providing a turnkey solar power generation service. Solaire Direct completed the construction of the first solar photovoltaic park in France, with a peak generating capacity of 4.3 megawatts-peak (MWp), close to the village of Vinon-sur-Verdon in 2009. Since then the company has fully developed, financed and completed 14 solar parks with a total installed capacity of 120MW.

Solairedirect has made significant private investment into the local renewable energy manufacturing industry in the past five years, with more than R50 million invested in not only the photovoltaic module manufacturing facility in Cape Town, but also in project development.

Decommissioning: The Solar Park will be decommissioned after 20-30 years, alternatively upgraded or an application submitted to obtain a new license. If decommissioned, all components excluding the foundations and some roads would be removed and the site



solairedirect
Southern Africa

The solar MWh company

The Environmental Impact Assessment Process

The Environmental Impact Assessment (EIA) for the proposed Solar Park is being conducted in terms of the National Environmental Management Act, 1998, (Act No. 107 of 1998), as amended (NEMA). Several activities associated with the project have been identified as listed activities in terms of the EIA Regulations GN.R544, GN.R545 and GN R546. The proposed EIA Process is outlined below.

Scoping Phase

A full Scoping/EIA Process will be undertaken for a Solar Park on the Drennan Site, with an output of up to 90MW. The purpose of the scoping phase is to determine the scope of studies to be conducted in the EIA phase. The scoping report will provide a description of the environmental and social characteristics of the site and surrounds, potential alternatives and a detailed plan of study for the EIA phase. The Draft Scoping Report will be made available for your comment.

EIA Phase

In the Environmental Impact Report (EIR), the issues identified in the scoping report will be assessed and the significance of the impacts will be rated according to a prescribed methodology. The draft EIR will be made available for your comment.

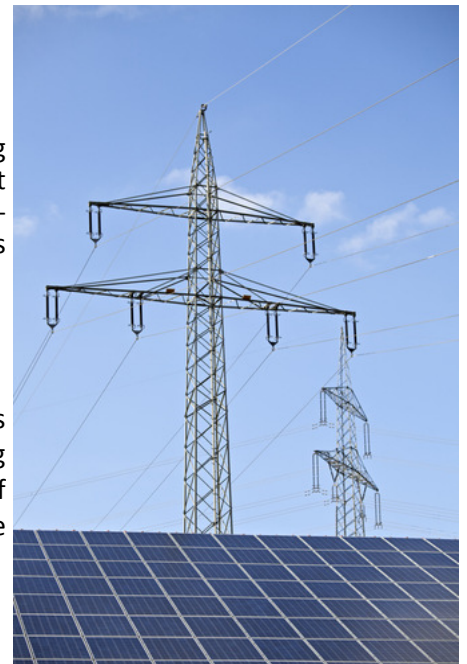
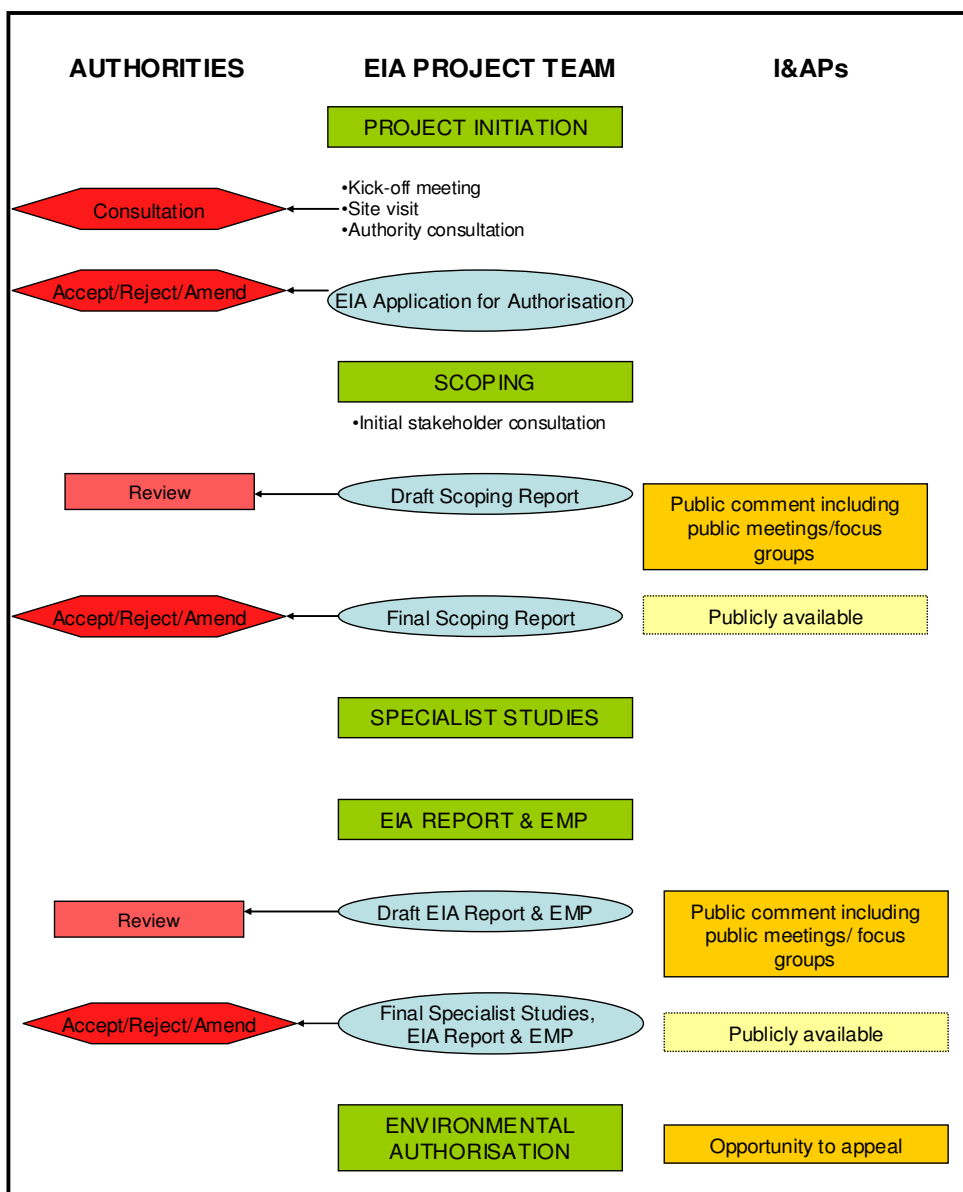


Figure 4: Power lines and PV panels



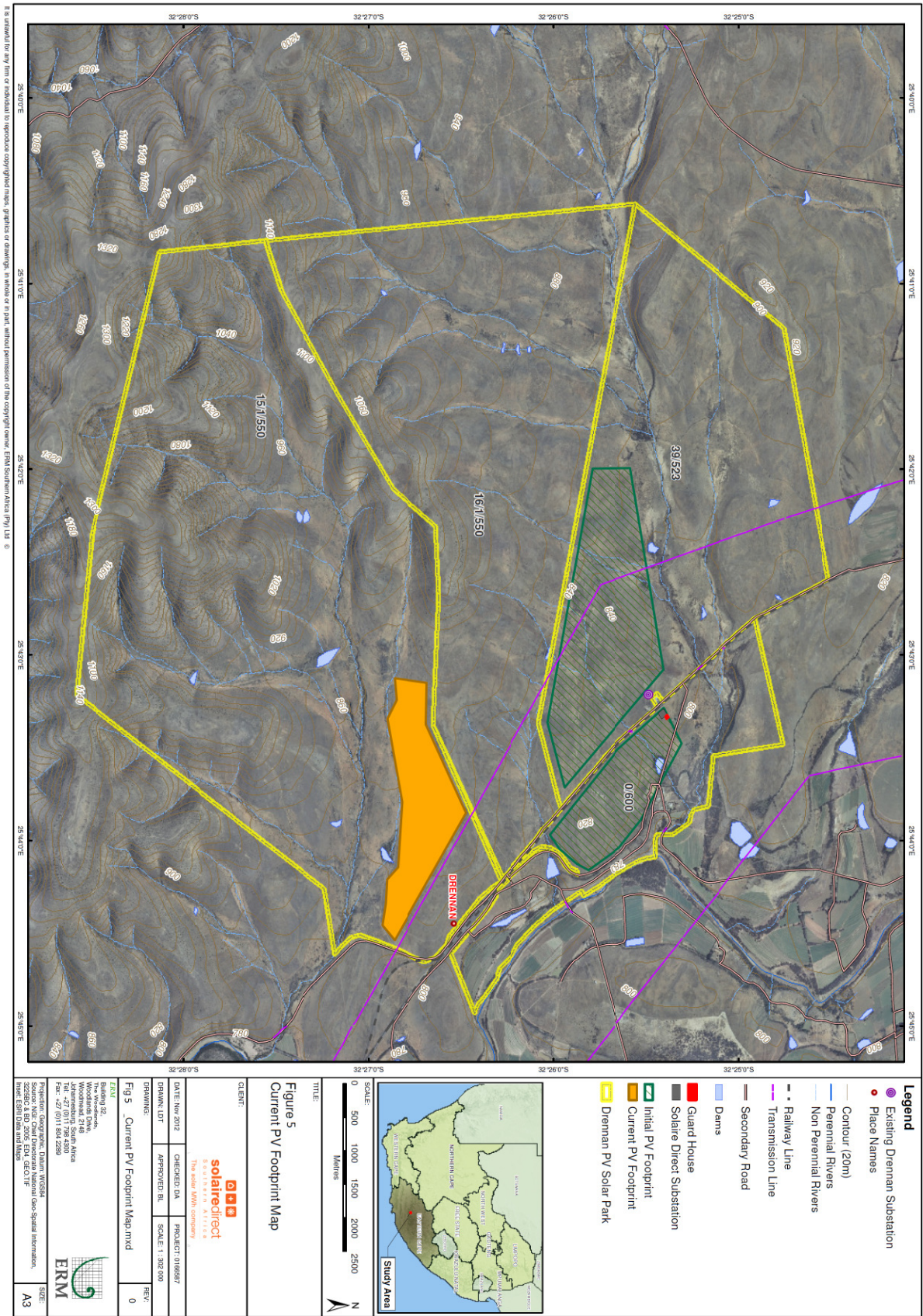
Public Participation

You are invited to be part of the EIA process! As a stakeholder, you are invited to identify issues and concerns about the project pertaining to potential positive or negative environmental and social impacts which will be investigated during the EIA process.

The draft Scoping and EIR reports will be released for comment for 30 days each, during which time, you will be asked to send your comments or questions to ERM. The project team will provide a response to the questions, and all comments and responses will be included in the final reports that will be submitted to the Department of Environmental Affairs for their consideration.



Figure 5: Current PV Footprint Map



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