

9 October 2019

Dear Interested and Affected Party,

## **BASIC ASSESSMENT AND PUBLIC PARTICIPATION PROCESS**

### **KHUNAB SOLAR DEVELOPMENT CONSISTING OF MCTAGGARTS PV1, MCTAGGARTS PV2, MCTAGGARTS PV3 AND KLIP PUNT PV1 AND THE KHUNAB SOLAR GRID CONNECTION, NORTHERN CAPE**

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#### **NOTICE OF BASIC ASSESSMENT PROCESSES**

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The development of four (4) separate 75MW solar photovoltaic (PV) facilities and the associated grid connection solution is proposed approximately 20km south-west of Upington in the Northern Cape Province. The four solar PV facilities, known as McTaggarts PV1, McTaggarts PV2, McTaggarts PV3 and Klip Punt PV1, are located to the north of the existing Khi Solar One facility. The grid connection solution to be developed, which will cater for all four solar PV facilities, is known as the Khunab Solar Grid Connection. The facilities are located within the Kai !Garib and the Dawid Kruiper local municipalities of the greater ZF Mgcau District Municipality.

It is the developer's intention to bid each solar PV facility under the Department of Energy and Mineral Resources Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). The development of the solar PV facilities and the grid connection solution infrastructure will assist in achieving the energy mix as set out in the Integrated Resources Plan (IRP).

The study area is located within Zone 7 of the Renewable Energy Development Zones (REDZ) (also known as the Upington REDZ), and within the Northern Strategic Transmission Corridor.

Each solar PV facility will be constructed as a separate stand-alone project, with a separate project development company (or Special Purpose Vehicle (SPV)) as the applicant for each project. Five separate Applications for Environmental Authorisation will be submitted to DEFF.

The project details for the respective projects are as follows:

<b>Applicant:</b>	<b>Project Name:</b>	<b>Contracted Capacity:</b>	<b>Affected Property:</b>
McTaggarts PV1 (Pty) Ltd	McTaggarts PV1	75MW	Portion 3 of the Farm McTaggarts Camp 453; and Portion 12 of the Farm Klip Punt 452
McTaggarts PV2 (Pty) Ltd	McTaggarts PV2	75MW	Portion 3 of the Farm McTaggarts Camp 453
McTaggarts PV3 (Pty) Ltd	McTaggarts PV3	75MW	Portion 3 of the Farm McTaggarts Camp 453; and Portion 12 of the Farm Klip Punt 452
Klip Punt PV1 (Pty) Ltd	Klip Punt PV1	75MW	Portion 12 of the Farm Klip Punt 452
McTaggarts PV1 (Pty) Ltd	Khunab Solar Grid Connection	Up to 132kV	Portion 3 of the Farm McTaggarts Camp 453; Portion 12 of the Farm Klip Punt 452; and Olyvenhouts Drift Settlement Agricultural Holdings 1080

The development of the solar PV facilities will add new capacity and transmission infrastructure to the national electricity grid network. Infrastructure associated with each solar PV facility will include:

- » Solar PV panels;
- » Centralised inverter stations or string inverters;
- » Cabling between the panels, to be laid underground where practical;
- » An on-site facility substation to facilitate the connection between the solar PV facility to the electricity grid;
- » An access road to the project site with a maximum width of 6m;
- » Internal access roads within the PV panel array area with a maximum width of 5m;
- » A temporary laydown area; and
- » Operation and Maintenance buildings including a gate house and security building, control centre, offices, warehouses, a workshop and visitors centre.

The grid connection solution will include specific grid connection infrastructure to cater for the four individual solar PV facilities. The infrastructure to be developed consists of two collector substations, each including a switching station component, and a single-circuit power line of up to 132kV to connect each solar PV facility to the national grid via the existing Upington Main Transmission Substation (MTS). A 300m wide and 13km long grid connection corridor will be assessed for the implementation of the grid connection infrastructure.

Site-specific studies and assessments will be undertaken through the BA processes in order to delineate areas of potential sensitivity within the surrounding areas and the identified broader study area.

## **BASIC ASSESSMENT PROCESS**

As per the Environmental Impact Assessment Regulations, 2014 published in terms of Section 24(5) of the National Environmental Management Act (NEMA, Act No 107 of 1998), the applicants will require authorisation from the National Department of Environment, Forestry and Fisheries (DEFF) (in

consultation with Northern Cape Department of Environment and Nature Conservation (DENC)) for the development of the projects. Due to the location of the broader study area within the REDZ, separate BA processes are required to be undertaken for the McTaggarts PV1, McTaggarts PV2, McTaggarts PV3 and Klip Punt PV1 in accordance with GNR114, as formally gazetted on 16 February 2018. A BA process will also be followed for the grid connection solution as it triggers Listed Activity 11 (i) within GN R327 of the EIA Regulations, 2014 (as amended). The applications are required to be supported by comprehensive, independent environmental studies undertaken in accordance with the EIA Regulations, 2014, as amended.

The applicant has appointed Savannah Environmental, as the independent environmental consultant, to undertake the BAs for the projects to identify and assess all potential environmental impacts associated with the projects and recommend appropriate mitigation measures in the Environmental Management Programme (EMPr) for each report. A combined BA and Public Participation Process will be conducted for the five (5) applications. As part of the environmental studies, I&APs will be actively involved through the public involvement process being undertaken by Savannah Environmental.

You and/or the organisation, which you represent, has been identified as an I&AP for the proposed projects as described above. A background information document, which provides further information on the BA process as well as the nature and extent of the proposed solar PV facilities, is attached to this letter and is also available for download from the Savannah Environmental Website (<https://www.savannahsa.com/public-documents/energy-generation/>).

Should you have an interest in the project, please register yourself as an I&AP by completing and returning the attached stakeholder registration/comment form. By registering on the project database, you will be kept informed of the BA processes being undertaken for the projects and will be provided with an opportunity to provide comment and input.

Please do not hesitate to contact us should you require additional information and/or clarification regarding the project. Our team welcomes your participation and look forward to your involvement throughout this process.

Kind regards



**Nicolene Venter**

Public Participation and Social Consultant

Email: [publicprocess@savannahsa.com](mailto:publicprocess@savannahsa.com)

**Attached:** Background Information Document  
Registration and Comment Form

OCTOBER 2019

BASIC ASSESSMENT  
AND  
PUBLIC PARTICIPATION PROCESS

**KHUNAB SOLAR DEVELOPMENT CONSISTING OF  
McTAGGARTS PV1, McTAGGARTS PV2,  
McTAGGARTS PV3 AND KLIP PUNT PV1 AND  
THE KHUNAB SOLAR GRID CONNECTION**

NORTHERN CAPE

savannah  
environmental

**BACKGROUND INFORMATION DOCUMENT**



The development of four (4) separate 75MW solar photovoltaic (PV) facilities and the associated grid connection solution is proposed on Portion 3 of the Farm McTaggarts Camp 453, Portion 12 of the Farm Klip Punt 452 and the Olyvenhouts Drift Settlement Agricultural Holdings 1080, located approximately 20km south-west of Upington in the Northern Cape Province. The four solar PV facilities, known as McTaggarts PV1, McTaggarts PV2, McTaggarts PV3 and Klip Punt PV1, are located to the north of the existing Khi Solar One facility. The grid connection solution to be developed, which will cater for all four solar PV facilities, is known as the Khunab Solar Grid Connection. The facilities are located within the Kai !Garib and the Dawid Kruiper local municipalities of the greater ZF Mgcawu District Municipality.

The study area is located within Zone 7 of the Renewable Energy Development Zones (REDZ) (also known as the Upington REDZ), and within the Northern Strategic Transmission Corridor. Due to the location of the study area within a REDZ, the EIA (Environmental Impact Assessment) process to be followed for the four solar PV facilities will be as per GN R114, as formally gazetted on 16 February 2018, with the four solar PV facilities being subject to a Basic Assessment (BA) process and not a full Scoping and Environmental Impact Report (SEIR) process, as well as a shortened timeframe of 57 days for the processing of the application for environmental authorisation by the Department of Environment, Forestry and Fisheries<sup>1</sup> (DEFF). The EIA process to be followed for the grid connection solution will be a BA process as per the requirements of the EIA Regulations, 2014 (as amended). Five separate Applications for Environmental Authorisation will be submitted to DEFF.

The nature and extent of the four solar PV facilities and the associated grid connection solution are explored in more detail in this Background Information Document (BID). The public participation processes for the projects will also be undertaken concurrently, providing the public with an opportunity to comment on all five (5) projects simultaneously. Each solar PV facility will be constructed as a separate stand-alone project, with a separate project development company (or Special Purpose Vehicle (SPV)) as the applicant for each project. The project details for the respective projects are as follows:

Applicant:	Project Name:	Contracted Capacity:	Affected Property:
McTaggarts PV1 (Pty) Ltd	McTaggarts PV1	75 MW	Portion 3 of the Farm McTaggarts Camp 453; and Portion 12 of the Farm Klip Punt 452
McTaggarts PV2 (Pty) Ltd	McTaggarts PV2	75 MW	Portion 3 of the Farm McTaggarts Camp 453
McTaggarts PV3 (Pty) Ltd	McTaggarts PV3	75 MW	Portion 3 of the Farm McTaggarts Camp 453; and Portion 12 of the Farm Klip Punt 452
Klip Punt PV1 (Pty) Ltd	Klip Punt PV1	75 MW	Portion 12 of the Farm Klip Punt 452
McTaggarts PV1 (Pty) Ltd	Khunab Solar Grid Connection	Up to 132 kV	Portion 3 of the Farm McTaggarts Camp 453; Portion 12 of the Farm Klip Punt 452; and Olyvenhouts Drift Settlement Agricultural Holdings 1080

It is the Developer's intention to bid each solar PV facility under the Department of Mineral Resources and Energy's<sup>2</sup> Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). The power generated from each solar PV facility will be sold to Eskom and fed into the national electricity grid through the proposed Khunab Solar Grid Connection. The development of the facilities and grid connection solution will also assist with achieving the electricity goals as set out in the Integrated Resource Plan (IRP).

### AIM OF THIS BACKGROUND INFORMATION DOCUMENT

- This document aims to provide you, as an interested and/or affected party (I&AP), with:
- » An overview of the proposed solar PV facilities and associated grid connection solution.
  - » An overview of the BA process and specialist studies being undertaken to assess each of the projects.
  - » Details of how you can become involved in the BA processes, receive information, or raise issues that may concern and/or interest you.

### OVERVIEW OF THE PROPOSED PROJECTS

In response to the gap between the demand and supply of electricity in South Africa, the need to promote renewable energy and sustainability within the Northern Cape Province, as well as the country's targets for renewable energy, the development of four 75MW solar PV facilities and the associated grid connection solution is proposed. The development of the solar PV facilities will add new capacity and transmission infrastructure to the national electricity grid network. Each solar PV facility will have a development footprint of approximately 200ha in extent which will be sited within the respective development areas located within the broader study area.

Infrastructure associated with each solar PV facility will include:

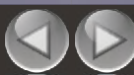
- » Solar PV panels;
- » Centralised inverter stations or string inverters;
- » Cabling between the panels, to be laid underground where practical;
- » An on-site facility substation to facilitate the connection between the solar PV facility to the electricity grid;
- » An access road to the project site with a maximum width of 6m;
- » Internal access roads within the PV panel array area with a maximum width of 5m;
- » A temporary laydown area; and
- » Operation and Maintenance buildings including a gate house and security building, control centre, offices, warehouses, a workshop and visitors centre.

The grid connection solution will include specific grid connection infrastructure to cater for the four individual solar PV facilities. The infrastructure to be developed consists of two collector substations and switching stations and a single-circuit power line of up to 132kV to connect each solar PV facility to the national grid via the existing Upington Main Transmission Substation (MTS). A 300m wide and 13km long grid connection corridor will be assessed for the implementation of the grid connection infrastructure.

Site-specific studies and assessments will be undertaken through the BA processes in order to delineate areas of potential sensitivity within the surrounding areas and the identified broader study area. Once constraining factors have been determined, the layout of each solar PV facility can be planned to minimise social and environmental impacts.

<sup>1</sup> Previously called the Department of Environmental Affairs (DEA), this Department is an amalgamation of the DEA as well as the Department of Agriculture, Forestry and Fisheries (known as DAFF), as of 29 May 2019.

<sup>2</sup> The Department of Mineral Resources and Energy is an amalgamation to the Department of Energy (DoE) and the Department of Mineral Resources (DMR), as of 29 May 2019.

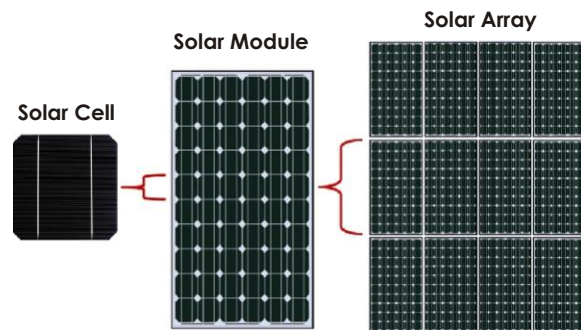


## MORE ABOUT SOLAR PV TECHNOLOGY

Solar energy facilities (such as those that utilise PV technology) use energy from the sun to generate electricity through a process known as the **Photovoltaic Effect**. This effect refers to photons of light colliding with electrons, and therefore placing the electrons into a higher state of energy to create electricity. The solar fields of McTaggart PV1, McTaggart PV2, McTaggart PV3 and Klip Punt PV1 will comprise the following components:

### Photovoltaic Cells

A photovoltaic (PV) cell is made of silicone that acts as a semiconductor used to produce the photovoltaic effect. PV cells are arranged in multiples / arrays and placed behind a protective glass sheet to form a PV panel. Each PV cell is positively charged on one side and negatively charged on the opposite side, with electrical conductors attached to either side to form a circuit. This circuit captures the released electrons in the form of an electric current (i.e. Direct Current (DC)).



**Figure 1:** Overview of a PV cell, module and array/panel (Source: pveducation.com)

A PV solar panel is made up of individual PV cells connected together, whereas a solar PV array is a system made up of a group of individual solar PV panels electrically wired together to form a much larger PV installation.

The PV panels will be fixed to support structures and will either utilise fixed/static support structures, or alternatively, they can utilise single or double axis tracking support structures.

### Inverters

Inverters are used to convert electricity produced by the PV cells from Direct Current (DC) into Alternating Current (AC), to enable the facility to be connected to the national electricity grid. In order to connect large solar facilities, such as the ones being proposed, to the national electricity grid, numerous inverters will be arranged in several arrays to collect and convert power produced by the facilities.

PV panels are designed to operate continuously for more than 20 years, mostly unattended and with low maintenance.

## BASIC ASSESSMENT PROCESS

In accordance with the amended 2014 EIA Regulations (GNR 326) published in terms of Section 24(5) of the National Environmental Management Act (No. 107 of 1998) (NEMA), the applicants require Environmental Authorisation (EA) from the National Department of

Environment, Forestry and Fisheries (DEFF) in consultation with the Northern Cape Department of Environment and Nature Conservation (DENC) for the development of the proposed projects. In terms of Section 24(5) of NEMA, the 2014 EIA Regulations (GN R326), the Government Notice (R114) and Listing Notices (GN R327, GN R325, and GN R324), the applications for EAs for McTaggart PV1, McTaggart PV2, McTaggart PV3 and Klip Punt PV1 are subject to the completion of a Basic Assessment (BA) process, as the entire extent of the study area for the projects is located within the Uptington REDZ. The EIA process to be followed for the grid connection solution will be a BA process as per the requirements of the EIA Regulations, 2014 (as amended). Five separate Applications for Environmental Authorisation will be submitted to DEFF for the proposed developments. Each application is required to be supported by comprehensive, independent environmental studies undertaken in accordance with the 2014 EIA Regulations (GN R326).

A BA is an effective planning and decision-making tool. It allows for potential environmental consequences resulting from a proposed activity to be identified and appropriately managed during the construction, operation, and decommissioning phases of development. It also provides an opportunity for the project applicant to be forewarned of potential environmental issues, and allows for the resolution of issue(s) identified and reported on as part of the BA process, as well as provides opportunity for dialogue with key stakeholders and Interested and Affected Parties (I&APs).

Savannah Environmental has been appointed as the independent environmental consultants responsible for managing the separate applications for EA and undertaking the supporting BA processes required to identify and assess potential environmental impacts associated with the projects, as well as propose appropriate mitigation and management measures to be contained within the Environmental Management Programmes (EMPrs). I&APs will be actively involved in the BA processes through the public participation process.

## WHAT ARE THE POTENTIAL ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE PROPOSED PROJECTS?

The study area and the proposed grid connection corridor will be assessed by independent environmental specialists to identify the potential for environmental impacts. Specialist studies that are proposed as part of the BA processes include the following:

- » Biodiversity – which includes ecology, freshwater features, fauna and flora and assesses the potential impact and the associated disturbance of vegetation on the biodiversity (including critical biodiversity areas and broad-scale processes).
- » Avifauna – includes an assessment of impacts on avifaunal habitats and sensitive species.
- » Soils, Land Use, and Agricultural Potential – which includes land types and assesses the significance of loss of agricultural land and soil degradation and/or erosion.
- » Heritage (Archaeology and Palaeontology) – which includes archaeology and palaeontology and assesses the potential of disturbance to or destruction of heritage sites and fossils during the construction phase through excavation activities.
- » Visual – which includes the visual quality of the area and assesses the impact of a solar PV facility and a grid connection solution on the aesthetics within the area.
- » Social – which assesses the positive and negative social impacts.

The independent specialist studies will be undertaken wherein the potentially significant impacts will be identified, assessed and ground-truthed. Practical and achievable mitigation measures will be recommended in order to minimise the significance of the potential impacts identified. These recommendations will be included within an Environmental Management Programme (EMPr) compiled for the various projects.

Specialist studies will be informed by existing information, field observations and input from the public participation process. As an I&AP, your input is considered as an important part of the process, and we urge you to become involved.

### PUBLIC PARTICIPATION PROCESS

The sharing of information forms the basis of the public participation process and offers I&APs the opportunity to become actively involved in the BA processes being undertaken for the respective projects. Comments and inputs from I&APs are encouraged in order to ensure that potential impacts are considered throughout. The public participation process aims to ensure that:

- » Information containing all relevant facts in respect of the applications are made available to I&APs for review.
- » I&AP participation is facilitated in such a manner that they are provided with reasonable opportunity to comment on the proposed projects.
- » Adequate review periods are provided for I&APs to comment on the findings of the BA Reports.

In order to ensure effective participation, the public participation processes include the following:

- » Identifying I&APs, including affected and adjacent landowners and occupiers of land, and relevant Organs of State.
- » Placing site notices at the affected properties.
- » Placing advertisements in local newspapers.
- » Compiling and maintaining a database of I&APs throughout the BA processes.
- » Notifying I&APs of the commencement of the BA processes and distributing the Background Information Document (BID).
- » Notifying I&APs of relevant milestones throughout the BA processes.
- » Notifying I&APs of the release of the BA Reports for a 30-day public review period.
- » Holding consultation meetings with I&APs at various intervals throughout the process as applicable to provide an opportunity for I&APs to engage with the BA project team.
- » Notifying I&APs of DEFF's final decision on whether to grant or refuse EA, and the manner in which such a decision may be appealed.

### YOUR RESPONSIBILITIES AS AN I&AP

In terms of the 2014 EIA Regulations (GNR 326, as amended), your attention is drawn to your responsibilities as an I&AP:

- » In order to participate in the BA processes, you must register yourself on the I&AP database.
- » You must ensure that any comments regarding the proposed projects are submitted within the stipulated timeframes.
- » You are required to disclose any direct business, financial, personal, or other interest that you may have in the approval or refusal of the applications.

### HOW TO BECOME INVOLVED

1. By responding by phone, fax, or e-mail, to the invitation for your involvement.
2. By returning the reply form to the relevant contact person.
3. By attending meetings to be held during the course of the BA processes.
4. By contacting the environmental consultants with queries or comments.

5. By reviewing and commenting on the BA Reports within the stipulated 30-day public review periods. Registered I&APs will automatically be notified of the release of the BA Reports for comment, and the closing dates by which comments must be received.

If you consider yourself an I&AP for the proposed projects, we urge you to make use of the opportunities created by the public participation process to provide comment, raise issues and concerns which affect and / or interest you, or request further information. Your input forms a key element of the BA processes.

By completing and submitting the accompanying reply form, you automatically register yourself as an I&AP for the proposed projects, and are ensured that your comments, concerns, or queries raised regarding the projects will be noted.

### COMMENTS AND QUERIES

**Direct all comments, queries, or responses to:**

**Savannah Environmental (Pty) Ltd**  
P.O. Box 148, Sunninghill, Johannesburg, 2157  
Tel: 011 656 3237  
Fax: 086 684 0547  
E-mail: [publicprocess@savannahsa.com](mailto:publicprocess@savannahsa.com)

**To view project documentation, visit**

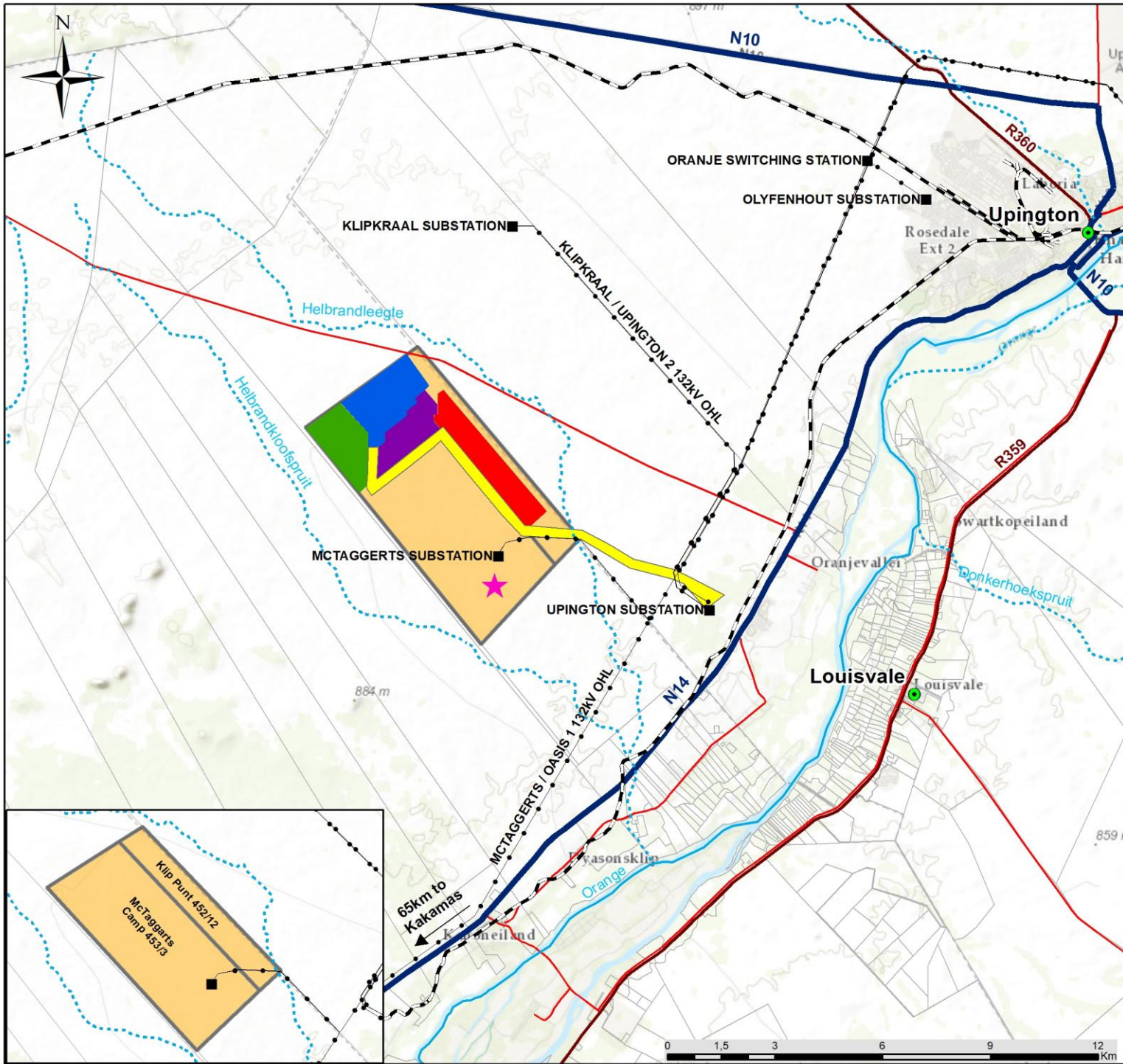
[www.savannahSA.com](http://www.savannahSA.com)

**Khunab Solar Developments:**

<https://www.savannahsa.com/public-documents/energy-generation/>

**Khunab Grid Connection:**

<https://www.savannahsa.com/public-documents/grid-infrastructure/>



**Khunab Solar Development consisting of McTaggarts PV1, McTaggarts PV2, McTaggarts PV3, Klip Punt PV1 and the Khunab Solar Grid connection, Northern Cape**

Locality Map

**Legend**

- Town
- ★ Khi Solar 1 CSP Facility (existing)
- Eskom Substations
- Eskom power line
- +— Railway Line
- Perennial River
- Non-perennial River
- National Route
- Regional Road
- Main Road
- McTaggarts PV1 Development Area
- McTaggarts PV2 Development Area
- McTaggarts PV3 Development Area
- Klip Punt PV1 Development Area
- Grid Connection Corridor (300m wide)
- Broader Study Area
- Farm Portions

Scale: 1:150 000  
 Projection: LO21  
 Ref: Khunab PVx4 & Grid x2 - BID Locality Map 08.10.19



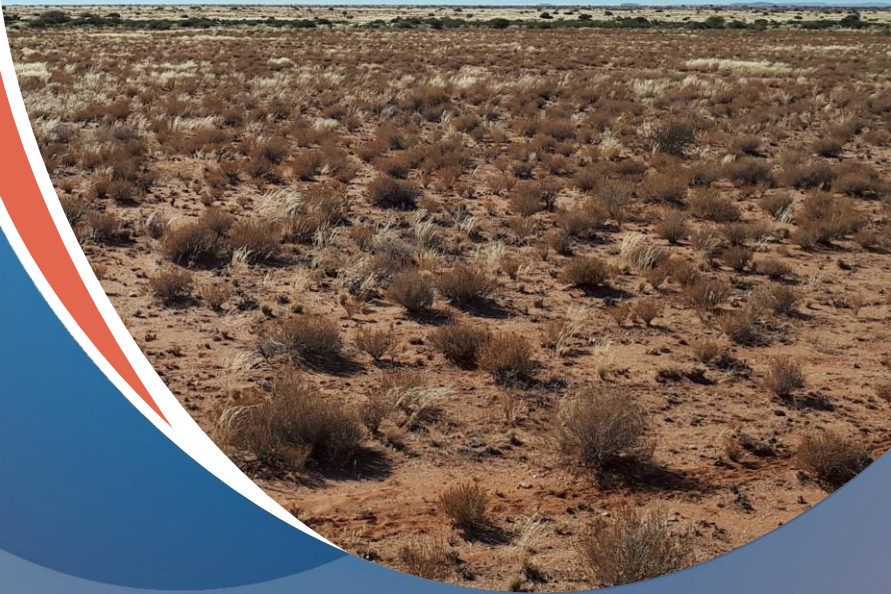


OKTOBER 2019

BASIESE EVALUERING-  
EN  
OPENBARE DEELNAMEPROSES

**KHUNAB SONKRAGONTWIKKELING BESTAANDE  
UIT McTAGGARTS FV1, McTAGGARTS FV2,  
McTAGGARTS FV3 EN KLIP PUNT FV1 EN DIE  
KHUNAB SONKRAGROOSTERKONNEKSIE**

NOORD-KAAP



savannah  
environmental

**AGTERGRONDINLIGTINGSDOKUMENT**



Die ontwikkeling van vier (4) afsonderlike 75 MW fotovoltaïese (FV) sonkragaanlegte en die gepaardgaande roosterkonneksie-oplossing word beoog op Gedeelte 3 van die plaas McTaggart's Camp 453, Gedeelte 12 van die plaas Klip Punt 452 en Olyvenhouts Drift Settlement Agricultural Holdings 1080, sowat 20 km suidwes van Uppington in die Noord-Kaapprovinsie. Die vier FV-sonkragaanlegte staan bekend as McTaggart's FV1, McTaggart's FV2, McTaggart's FV3 en Klip Punt FV1 en is noord van die bestaande Khi Solar One-aanleg geleë. Die roosterkonneksie-oplossing wat ontwikkel moet word, wat vir al vier FV-sonkragaanlegte voorsiening sal maak, staan bekend as die Khunab Sonkragroosterkonneksie. Die aanlegte is geleë in die Kai !Garib en die Dawid Kruiper plaaslike munisipaliteite van die ZF Mgcawu Distriksmunisipaliteit en omstreke.

Die studiegebied is geleë in Sone 7 van die Hernubare Kragontwikkelingssones (REDZ) (ook bekend as die Uppington REDZ) en in die Noordelike Strategiese Transmissiekorridor. Weens die ligging van die studiegebied binne-in 'n REDZ, sal die OIE-proses (Omgewingsimpakbeoordelingsproses) wat vir die vier FV-sonkragaanlegte gevolg moet word ingevolge Staatskennisgewing R114 wees, soos formeel afgekondig in die Staatskoerant op 16 Februarie 2018, met die vier FV-sonkragaanlegte wat onderhewig is aan 'n Basiese Evalueeringsproses (BE-proses) en nie 'n volledige Bestekopname- en Omgewingsimpakverslagproses (BOIv-proses) nie, asook 'n verkorte tydsraamwerk van 57 dae vir die verwerking van die aansoek om omgewingsmagtiging deur die Departement van Omgewing, Bosbou en Visserye<sup>1</sup> (DEFF). Die OIE-proses wat vir die roosterkonneksie-oplossing gevolg moet word, sal 'n BA-proses volgens die vereistes van die OIE-regulasies, 2014 (soos gewysig) wees. Vyf afsonderlike Aansoeke om Omgewingsmagtiging sal by die DEFF ingedien word.

Die aard en omvang van die vier FV-sonkragaanlegte en die gepaardgaande roosterkonneksie-oplossing word van naderby in hierdie Agtergrondinligtingsdokument (AID) ondersoek. Die projekte se openbare deelnameprosesse sal ook gelyklopend onderneem word, wat die publiek 'n geleentheid sal bied om gelyktydig op al vyf (5) projekte kommentaar te lewer. Elke FV-sonkragaanleg sal as afsonderlike, losstaande projek met 'n afsonderlike projekontwikkelingsmaatskappy (of Spesialedoelmedium (SDM)) as die Applikant vir elk van die projekte opgerig word. Die projekbesonderhede vir die onderskeie projekte is soos volg:

Applikant:	Projeknaam:	Gekontrakteerde Vermoë:	Geëffekteerde Eiendom:
McTaggart's PV1 (Edms.) Bpk.	McTaggart's FV1	75 MW	Gedeelte 3 van die plaas McTaggart's Camp 453; en Gedeelte 12 van die plaas Klip Punt 452
McTaggart's PV2 (Edms.) Bpk.	McTaggart's FV2	75 MW	Gedeelte 3 van die plaas McTaggart's Camp 453
McTaggart's PV3 (Edms.) Bpk.	McTaggart's FV3	75 MW	Gedeelte 3 van die plaas McTaggart's Camp 453; en Gedeelte 12 van die plaas Klip Punt 452
Klip Punt PV1 (Edms.) Bpk.	Klip Punt FV1	75 MW	Gedeelte 12 van die plaas Klip Punt 452
McTaggart's PV1 (Edms.) Bpk.	Khunab Sonkragroosterkonneksie	Hoogstens 132 kV	Gedeelte 3 van die plaas McTaggart's Camp 453; Gedeelte 12 van die plaas Klip Punt 452; en Olyvenhouts Drift Settlement Agricultural Holdings 1080

Die ontwikkelaar is van voorneme om elke FV-sonkragaanleg aan te bied ingevolge die Departement van Minerale Hulpbronne en Energie<sup>2</sup> se Verkrygingsprogram vir Onafhanklike Hernubare Kragprodusente (REIPPP). Die krag wat by elke FV-sonkragaanleg opgewek sal word, sal aan Eskom verkoop en deur die beoogde Khunab Sonkragroosterkonneksie by die nasionale kragnet ingevoer word. Die ontwikkeling van die aanlegte en die roosterkonneksie-oplossing sal ook help om die elektrisiteitsdoelwitte soos uiteengesit in die Geïntegreerde Hulpbronneplan (IRP), te verwesenlik.

### DOEL VAN HIERDIE AGTERGRONDINLIGTINGSDOKUMENT

Hierdie dokument poog om u, as 'n belangstellende en/of geëffekteerde party (B&GP), te voorsien van:

- » 'n oorsig van die beoogde FV-sonkragaanlegte en gepaardgaande roosterkonneksie-oplossing;
- » 'n oorsig van die Basiese Evalueeringsproses (BE-proses) en spesialisstudies wat onderneem word om elk van die projekte te evalueer;
- » besonderhede van hoe u by die BE-prosesse betrokke kan raak, inligting kan ontvang of vraagstukke kan opper wat u dalk kan raak en/of vir u van belang kan wees.

### OORSIG VAN DIE BEOOGDE PROJEKTE

In antwoord op die groeiende vraag na en voorsiening van elektrisiteit in Suid-Afrika, die behoefte om hernubare krag en volhoubaarheid in die Noord-Kaapprovinsie te bevorder, asook die land se teikens vir hernubare krag, word die ontwikkeling van vier 75 MW FV-sonkragaanlegte en die gepaardgaande roosterkonneksie-oplossing beoog. Die ontwikkeling van die FV-sonkragaanlegte sal nuwe vermoë en transmissie-infrastruktuur by die nasionale kragnetwerk voeg. Elke FV-sonkragaanleg sal 'n ontwikkelingsvoetspoor van sowat 200 ha in omvang hê wat in die onderskeie ontwikkelingsgebiede binne-in die breër studiegebied geleë sal wees.

Infrastruktuur wat met elk van die FV-sonkragaanlegte gepaard gaan, sal insluit:

- » FV-sonkragpanele;
- » gesentraliseerde wisselrigterstasies of wisselrigterstringe;
- » kables tussen die panele, wat ondergronds gelê moet word waar dit prakties moontlik is;
- » 'n interne aanlegsubstasie om die konneksie tussen die FV-sonkragaanleg en die kragrooster te bewerkstellig
- » 'n toegangspad met 'n wydte van hoogstens 6 m na die projekterrein toe;
- » interne toegangspaaie met 'n wydte van hoogstens 5 m binne-in die FV-paneelreeksgebied;
- » 'n tydelike opslagwerf; en
- » bedryfs- en instandhoudingsgeboue, insluitend 'n hekhuis en sekerheidsgebou, kontrolesentrum, kantore, store, 'n werkwinkel en besoekersentrum.

Die roosterkonneksie-oplossing sal spesifieke roosterkonneksie-infrastruktuur insluit om voorsiening te maak vir die vier individuele FV-sonkragaanlegte. Die infrastruktuur wat ontwikkel gaan word, bestaan uit twee kollektorsubstasies en skakelstasies en 'n enkelkringkraglyn van hoogstens 132 kV wat elke FV-sonkragaanleg via die bestaande Uppington Hooftransmissie Substasie (HTS) met die nasionale kragrooster sal verbind. 'n Roosterkonneksiekorridor oor 13 km met 'n wydte van 300 m sal vir die inwerkingstelling van die roosterkonneksie-infrastruktuur geëvalueer word.

Studies eie aan die terrein en evalueerings sal deur die BE-prosesse onderneem word ten einde potensieel sensitiewe gebiede in die omliggende gebiede en in die geïdentifiseerde

<sup>1</sup> Voorheen die Departement van Omgewingsake (DO), die Department is 'n samesmelting van die DO en die Department van Landbou, Bosbou en Visserij (voorheen bekend as DAFF), vanaf 29 Mei 2019.

<sup>2</sup> Die Departement van Minerale Hulpbronne en Energie is vanaf 29 Mei 2019 'n samesmelting tussen die Departement van Energie (DE) en die Department van Minerale Hulpbronne (DMH).

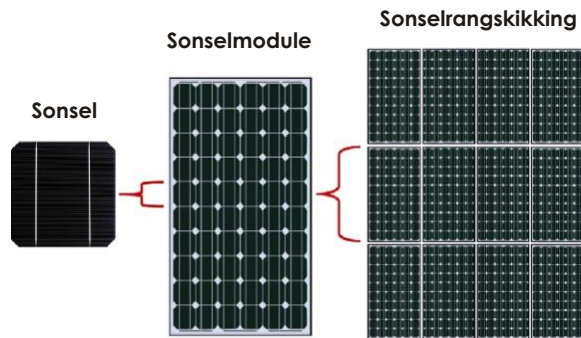
studiegebied aan te dui. Sodra beperkende faktore bepaal is, kan die uitleg van elke FV-sonkragaanleg beplan word om maatskaplike en omgewingsimpakte tot die minimum te beperk.

### MEER OOR FV-SONKRAGTEGNOLOGIE

Sonkragaanlegte, soos dié wat FV-tegnologie gebruik, wend die son se energie aan om elektrisiteit op te wek deur 'n proses wat as die **Fotovoltaïese Effek** bekend staan. Hierdie effek verwys na ligfotone wat met elektrone bots, wat die elektrone gevolglik in 'n hoër staat van energie plaas om elektrisiteit voort te bring. Die sonkragvelde van McTaggart's FV1, McTaggart's FV2, McTaggart's FV3 en Klip Punt FV1 sal uit die volgende komponente bestaan:

#### Fotovoltaïese Selle

'n Fotovoltaïese (FV) sel word van silikon gemaak wat as halfgeleier optree en aangewend word om die fotovoltaïese effek voort te bring. FV-selle word in veelvoude/rangskikkings agter 'n beskermende glaspaneel geplaas om 'n FV-paneel te vorm. Elke FV-sel se een kant is positief en die teenoorgestelde kant negatief gelaai, met elektriese geleiers wat aan beide kante aangebring is om 'n stroombaan te vorm. Hierdie stroombaan vang die vrygestelde elektrone vas in die vorm van 'n elektriese stroom (d.i. gelykstrom (GS)).



**Figuur 1:** Oorsig van 'n FV-sel, module en rangskikking/paneel (Bron: pveducation.com)

'n FV-sonpaneel bestaan uit individuele FV-selle wat met mekaar verbind is, terwyl 'n FV-sonkragreeks 'n stelsel is wat bestaan uit 'n groep individuele FV-sonpanele wat elektries saambedraad is om 'n veel groter FV-installasie te vorm.

Die FV-panele sal op steunstrukture aangebring word en hetsy vaste/stilstaande steunstrukture sal gebruik word, of andersins kan hulle enkel- of dubbelas naspoordersteunstrukture gebruik.

#### Wisselrigters

Wisselrigters word gebruik om elektrisiteit wat deur die FV-selle opgewek word van gelykstrom (GS) na wisselstroom (WS) om te sit sodat die aanleg met die nasionale kragnet verbind kan word. Ten einde groot sonkragaanlegte, soos dié wat beoog word, met die nasionale kragnet te verbind, sal verskeie wisselrigters in verskeie reekse gerangskik word om die krag wat by die aanlegte opgewek word, te versamel en om te sit.

FV-panele is ontwerp om vir meer as 20 jaar ononderbroke, meestal onbeman en met min instandhouding in bedryf te staan.

### OMGEWINGSIMPAKBASIESE EVALUERINGSPROSES

Ooreenkomstig die 2014 OIE-regulasies, soos gewysig, (Staatskennisgewing R326) wat kragtens Artikel 24(5) van die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA) gepubliseer is, benodig die applikante Omgewingsmagtiging (OM) van die Nasionale Departement van Omgewing, Bosbou en Visserye (DEFF), in oorleg met die Noord-Kaapse Departement van Omgewingsake en Natuurbewaring (DENC) vir die ontwikkeling van die beoogde projekte. Ingevolge Artikel 24(5) van NEMA, die 2014 OIE-regulasies (Staatskennisgewing R326), Staatskennisgewing R114 en Lyskennisgewings (Staatskennisgewing R324, R325 en R327), is die aansoeke om OM's vir McTaggart's FV1, McTaggart's FV2, McTaggart's FV3 en die Klip Punt FV1 onderhewig aan die voltooiing van 'n Basiese Evalueringsproses (BE) aangesien die hele omvang van die projekte in die Upington REDZ geleë is. Die OIE-proses wat vir die roosterkonneksie-oplossing gevolg moet word, sal 'n BE-proses volgens die vereistes van die OIE-regulasies, 2014 (soos gewysig) wees. Vyf afsonderlike aansoeke om Omgewingsmagtiging vir die beoogde ontwikkelings sal by die DEFF ingedien word. Elke aansoek moet gerugsteun word deur omvattende, onafhanklike omgewingstudies wat ingevolge die 2014 OIE-regulasies (Staatskennisgewing R326) onderneem word.

'n BE is 'n doeltreffende beplannings- en besluitnemingswerktuig. Dit bring mee dat potensiele omgewingsverwante gevolge wat voortspruit uit 'n beoogde aktiwiteit, geïdentifiseer en na behore tydens die oprigtings-, bedryfs- en uitbedryfstellingsfase van ontwikkeling bestuur word. Dit bied ook 'n geleentheid vir die projekapplikant om vooraf gewaarsku te wees van potensiele omgewingskwessies en maak voorsiening vir die oplossing van kwessies wat geïdentifiseer en as deel van die BE-proses oor verslag gedoen is, en bied ook die geleentheid vir dialoog met sleutelbelanghebbers en belangstellende en geïmpakteerde partye (B&GP's).

Savannah Environmental is aangestel as onafhanklike omgewingskonsultante wat verantwoordelik is vir die bestuur van die aparte aansoeke om OM's en om die stawende BEOIE-prosesse te onderneem wat vereis word om alle potensiele omgewingsimpakte wat verband hou met die projekte te identifiseer en te evalueer, en om gepaste versagtings- en bestuursmaatreëls aan die hand te doen wat in die Omgewingsbestuursprogram (OBPr'e) vervat moet word. Deur die openbare deelnameproses, sal B&GP's aktief betrokke wees in die BE-prosesse.

### WAT IS DIE POTENSIELE OMGEWINGSIMPakte WAT VERBAND HOU MET DIE BEOOGDE PROJEKTE?

Die projekterreine en die beoogde roosterkonneksiekorridor sal deur onafhanklike omgewingspesialiste geëvalueer word ten einde die potensiaal vir omgewingsimpakte te identifiseer. Spesialisstudies wat as deel van die BE-prosesse beoog word, sluit die volgende in:

- » Biodiversiteit - wat insluit ekologie, varswaterkenmerke, fauna en flora en die potensiele impak en gepaardgaande versteuring van plantegroei op die biodiversiteit (insluitende kritiese biodiversiteitsgebiede en breëskaalprosesse) evalueer.
- » Avifauna - sluit 'n evaluering van impakte op avifaunahabitate en sensitiewe spesies in.
- » Grond, grondgebruik en landboupotensiaal - wat insluit grondsoorte en die wesenlikheid van verlies aan landbougrond en gronddegradasie en/of erosie evalueer.
- » Erfenis (argeologie en paleontologie) - wat insluit argeologie en paleontologie en die potensiele versteuring of vernietiging van erfenisterreine en fossiele tydens die konstruksiefase weens opgrawingsbedrywighede evalueer.
- » Visueel - wat insluit die visuele gehalte van die gebied en die impak van 'n FV-sonkragaanleg en 'n roosterkonneksie-oplossing op die estetika in 'n gebied evalueer.
- » Maatskaplik - wat die positiewe en negatiewe maatskaplike impakte evalueer.



Die onafhanklike spesialisstudies sal onderneem word waarin die potensieel wesenlike impakte geïdentifiseer, geëvalueer en ter plaatse getoets sal word. Praktiese en uitvoerbare versagtingsmaatreëls sal aanbeveel word ten einde die wesenlikheid van die potensieel impakte wat geïdentifiseer is, te minimaliseer. Hierdie aanbevelings sal in 'n Omgewingsbestuursprogram (OBPr) vervat word, wat vir die verskeie projekte saamgestel sal word.

Spesialisstudies sal toegelig word deur bestaande inligting, veldwaarnemings en insette wat uit die openbare deelnameproses voortspruit. As 'n B&GP word u insette as 'n belangrike deel van die proses geag, en ons moedig u aan om betrokke te raak.

### OPENBARE DEELNAMEPROSES

Die deel van inligting vorm die grondslag van die openbare deelnameproses en bied B&GP's die geleentheid om aktief by die BE-prosesse, wat vir die onderskeidelike projekte onderneem word, betrokke te raak. Kommentaar en insette van B&GP's word aangemoedig ten einde te verseker dat potensieel impakte deurentyd oorweging geniet.

Die openbare deelnameproses poog om te verseker dat:

- » inligting wat al die tersaaklike feite met betrekking tot die aansoeke bevat, aan B&GP's beskikbaar gestel word vir insae;
- » deelname deur B&GP's op so 'n wyse gefasiliteer word dat hulle 'n redelike geleentheid gegun word om kommentaar te lewer op die beoogde projekte; en
- » toereikende insaetydperke aan B&GP's gebied word om kommentaar te lewer op die bevindinge van die BE-verslae.

Ten einde doeltreffende deelname te verseker, sluit die openbare deelnameprosesse in die:

- » identifisering van B&GP's, insluitend geaffekteerde en naburige grondeienaars en -bewoners en tersaaklike staatsinstansies;
- » plasing van terreinkennisgewings by die geaffekteerde eiendom(me);
- » plasing van advertensies in plaaslike koerante;
- » opstel en byhou van 'n databasis van B&GP's regdeur die BE-prosesse;
- » verwittiging van B&GP's van die aanvang van die BE-prosesse en die verspreiding van die Agtergrondinligtingsdokument (AID);
- » verwittiging van B&GP's van tersaaklike mylpale regdeur die BE-prosesse;
- » verwittiging van B&GP's van die vrystelling van die BE-verslae vir 'n 30-dae openbare insaetydperk;
- » hou van oorlegplegingsvergaderings met B&GP's op verskillende tydstippe regdeur die proses, soos van toepassing, om B&GP's 'n geleentheid te bied om met die OIBE-projekspan te skakel; en
- » verwittiging van B&GP's van die DEFF se finale besluit oor die toestaan of weiering van die OM en die wyse waarop teen sodanige besluit appèl aangeteken kan word.

### U VERANTWOORDELIKHEDE AS 'N B&GP

Kragtens die 2014 OIE-regulasies, (Staatskennisgewing R326, soos gewysig), word u aandag gevestig op u verantwoordelikhede as 'n B&GP:

- » Ten einde aan die BE-prosesse deel te neem, moet u uself op die B&GP-databasis registreer.
- » U moet toesien dat enige kommentaar met betrekking tot die beoogde projekte binne die gestipuleerde tydsraamwerke ingedien word.
- » U moet enige regstreekse sake-, finansiële-, persoonlike- of ander belang wat u dalk in die goedkeuring of weiering van die aansoeke kan hê, bekendmaak.

### HOE OM BETROKKE TE RAAK

1. Deur telefonies, per faks of per e-pos te reageer op die uitnodiging vir u betrokkenheid.
2. Deur die antwoordvorm aan die tersaaklike kontakpersoon terug te besorg.
3. Deur vergaderings by te woon wat tydens die verloop van die BE-prosesse gehou sal word.
4. Deur die omgewingskonsultante met navrae of kommentaar te kontak.
5. Deur oorsig en kommentaar oor die BE-verslae te bied, en wel binne die gestipuleerde 30-dae openbare insaetydperke. Geregistreeerde B&GP's sal outomaties in kennis gestel word van die vrystelling van die BE-verslae vir kommentaar, asook van die sluitingsdatums waarteen kommentaar ontvang moet word.

As u uself as 'n B&GP vir die beoogde projekte ag, moedig ons u aan om gebruik te maak van die geleenthede wat geskep word deur die openbare deelnameproses om kommentaar te lewer of daardie kwessies en knelpunte te opper wat u raak en/of vir u van belang is of waaroor u meer inligting versoek. U inset vorm 'n belangrike deel van die BE-prosesse.

Deur die meegaande Antwoordvorm in te vul en aan ons terug te besorg, registreer u uself outomaties as 'n B&GP vir die beoogde projekte en verseker u dat kennis geneem sal word van die kommentaar, knelpunte of navrae wat u betreffende die projekte opper.

### KOMMENTAAR EN NAVRAE

**Rig alle kommentaar, navrae of antwoorde aan:**

**Savannah Environmental (Edms) Bpk**

Posbus 148, Sunninghill, Johannesburg, 2157

Tel: 011 656 3237

Faks: 086 684 0547

E-pos: [publicprocess@savannahsa.com](mailto:publicprocess@savannahsa.com)

**om projekdokumentasie te besigtig, besoek**

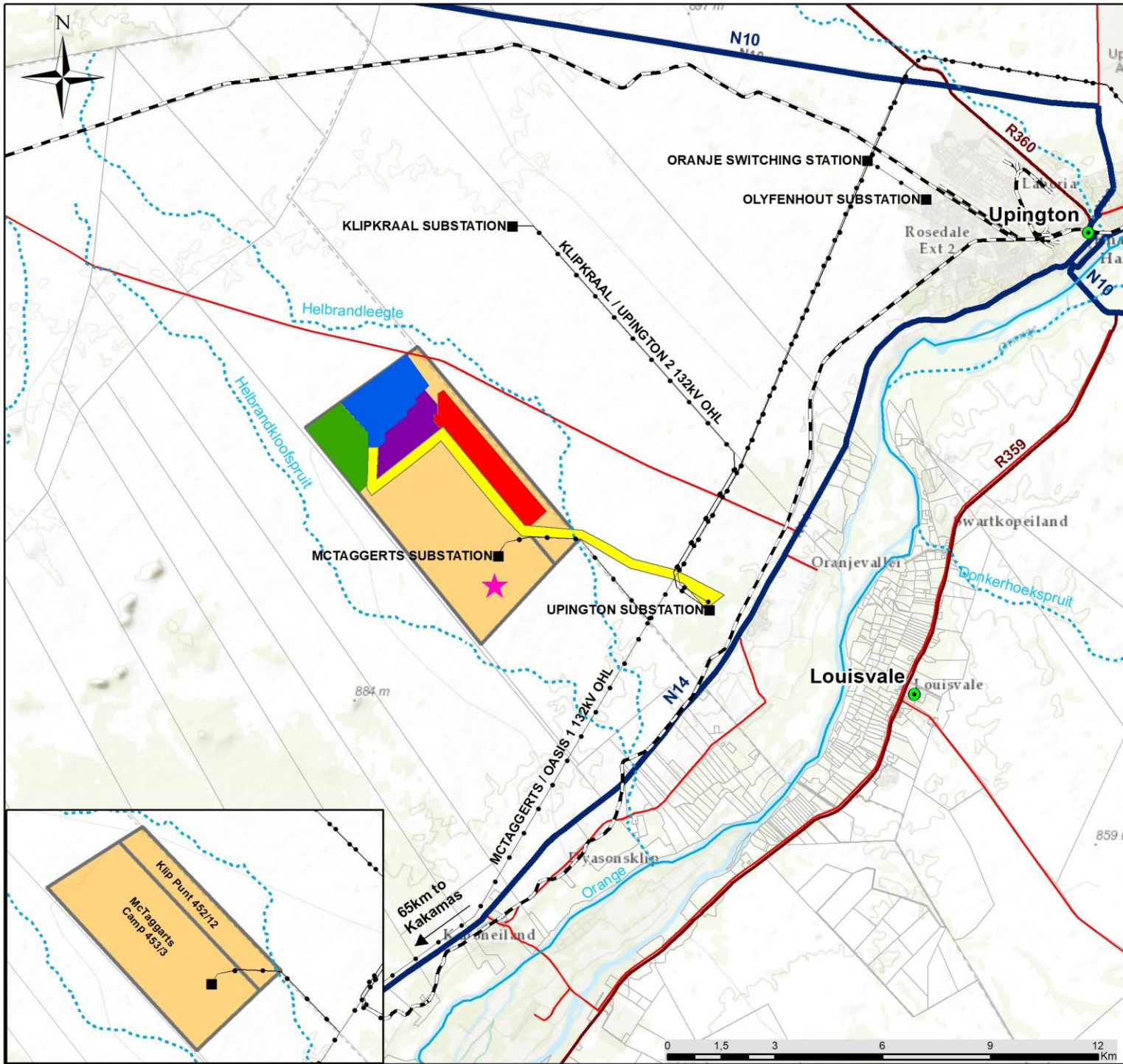
[www.savannahSA.com](http://www.savannahSA.com)

**Khunab Sonkragontwikkelings:**

<https://www.savannahsa.com/public-documents/energy-generation/>

**Khunab Sonkragroosterkonneksie:**

<https://www.savannahsa.com/public-documents/grid-infrastructure/>



**Khunab Solar Development consisting of McTaggarts PV1, McTaggarts PV2, McTaggarts PV3, Klip Punt PV1 and the Khunab Solar Grid connection, Northern Cape**

Locality Map

**Legend**

- Town
- ★ KHI Solar 1 CSP Facility (existing)
- Eskom Substations
- Eskom power line
- +— Railway Line
- Perennial River
- Non-perennial River
- National Route
- Regional Road
- Main Road
- McTaggarts PV1 Development Area
- McTaggarts PV2 Development Area
- McTaggarts PV3 Development Area
- Klip Punt PV1 Development Area
- Grid Connection Corridor (300m wide)
- Broader Study Area
- Farm Portions

Scale: 1:150 000  
 Projection: LO21  
 Ref: Khunab PVx4 & Grid x2 - BID Locality Map 08.10.19



BASIC ASSESSMENT AND PUBLIC PARTICIPATION PROCESS

KHUNAB SOLAR DEVELOPMENT CONSISTING OF MCTAGGARTS PV1, MCTAGGARTS PV2, MCTAGGARTS PV3 AND KLIP PUNT PV1 AND THE KHUNAB SOLAR GRID CONNECTION, NORTHERN CAPE

Registration & Comment Form

October 2019

Return completed registration and comment form to: **Nicolene Venter** of **Savannah Environmental**

Fax: **086 684 0547** / Phone: **011 656 3237**

E-mail: **publicprocess@savannahsa.com**

Postal Address: **PO Box 148, Sunninghill, 2157**

**Please provide your complete contact details:**

Name & Surname:			
Organisation:			
Designation:			
Postal Address:			
Telephone:		Fax:	
Mobile:			
E-mail:			

**I would you like to register as an interested and affected party (I&AP) on the following project's database** (please tick the relevant box)

McTaggarts PV1	<input type="checkbox"/>	McTaggarts PV2	<input type="checkbox"/>
McTaggarts PV3	<input type="checkbox"/>	Klip Punt PV1	<input type="checkbox"/>
Khunab Solar Grid Connection	<input type="checkbox"/>	<b>All of the above projects</b>	<input type="checkbox"/>

**In terms of EIA Regulations, 2014, as amended, Regulation 43(1), you are required to register as an I&AP to receive further correspondence regarding the BA process for the projects and to disclose any direct business, financial, personal or other interest which you may have in the approval or refusal of the application** (add additional pages if necessary):

**Please list your comments regarding your project selection above** (add additional pages if necessary):

**Please provide contact details of any other persons who you regard as a potential interested or affected party:**

Name & Surname:	
Postal Address:	
Telephone:	
Mobile:	
E-mail:	