

APPENDIX C3

Background Information Document

08 April 2019

Dear Interested and Affected Party,

BASIC ASSESSMENT AND PUBLIC PARTICIPATION PROCESS

DEVELOPMENT OF AGGENEYS 1 AND AGGENEYS 2 SOLAR PV FACILITIES AND ASSOCIATED GRID CONNECTION SOLUTIONS NEAR AGGENEYS, NORTHERN CAPE

NOTICE OF BASIC ASSESSMENT PROCESSES

The development of two separate 100MW solar photovoltaic (PV) facilities and associated infrastructure is proposed on the Remaining Extent of the Farm Bloemhoek 61, located approximately 11km south-east of Aggeneys in the Northern Cape Province. The two solar PV facilities are to be known as Aggeneys 1 and Aggeneys 2, and are situated within the Khâi-Ma Local Municipality, of the greater Namakwa District Municipality.

The project site is located within Zone 8 of the Renewable Energy Development Zones (REDZ) (also known as the Springbok REDZ), and within the Northern Transmission Corridor. The procedure to be followed in applying for environmental authorisation for a large-scale project in a REDZ was formally gazetted on 16 February 2018 (in GN113 and GN114). As Aggeneys 1 and Aggeneys 2 are located within one of the eight REDZ areas, the projects are subject to a Basic Assessment and not a full EIA process, as well as a shortened timeframe of 57 days for the processing of an Application for Environmental Authorisation.

Each PV development will also include a grid connection solution and the required grid connection infrastructure which consists of a collector substation and a single-circuit power line up to 220kV to connect the facility to the national grid – these will be known as Bloemhoek 1 and Bloemhoek 2. The construction of the collector substation and the overhead power line will be assessed as part of two separate Basic Assessment processes, which will consider feasible alternatives for the power line routes.

The assessment of the grid connection infrastructure will be undertaken within a corridor with a width of up to 1.5km and a length of up to 17km. Seven properties may be traversed by the development of Bloemhoek 1 and Bloemhoek 2, and these include:

- » Remaining Extent of the Farm Bloemhoek 61
- » Portion 1 of Bloemhoek 61
- » Portion 2 of Bloemhoek 61
- » Portion 3 of Bloemhoek 61
- » Portion 1 of the Farm Aggeneys 56
- » Portion 2 of the Farm Aggeneys 56
- » Remaining Extent of the Farm Aggeneys 56

Infrastructure associated with each solar PV facility will include:

- » Arrays of PV panels with a contracted capacity of up to 100MW.
- » Mounting structures to support the PV panels.
- » Cabling between the project components, to be laid underground where practical.
- » On-site inverters to convert the power from a direct current (DC) to an alternating current (AC).
- » An on-site substation to facilitate the connection between the solar PV facility and the Eskom electricity grid.
- » Site offices and maintenance buildings, including workshop areas for maintenance and storage.
- » Temporary laydown areas.
- » Internal access roads and fencing around the project site.

A collector substation and an overhead single-circuit power line with a transmission capacity of up to 220kV connecting each facility to the Aggeneis Main Transmission Substation (MTS) is assessed separately.

Each of the solar PV facility projects 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 details are:

Applicant:	Project Name:	Capacity:
ABO Wind Aggeneys 1 PV (Pty) Ltd	Aggeneys 1 (solar PV facility) Bloemhoek 1 (grid connection infrastructure for Aggeneys 1)	100MW (contracted capacity) Up to 220kV
ABO Wind Aggeneys 2 PV (Pty) Ltd	Aggeneys 2 (solar PV facility) Bloemhoek 2 (grid connection infrastructure for Aggeneys 2)	100MW (contracted capacity) Up to 220kV

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

It is the Developer's intention to bid each solar PV facility under the Department of Energy's (DoE) Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). The power generated from each solar PV facility is intended to be sold to Eskom and fed into the national electricity grid. The development of the facilities and grid connection infrastructure will also assist with achieving the energy mix as set out in the Integrated Resources Plan (IRP).

BASIC ASSESSMENT PROCESS

As per the EIA Regulations published in terms of Section 24(5) of the National Environmental Management Act (NEMA, Act No 107 of 1998), the applicant will require authorisation from the National Department of Environmental Affairs (DEA) (in consultation with Northern Cape Department of Environment and Nature Conservation (DENC)) for the undertaking of the projects. Due to the location of the project site within the REDZ and within the northern corridor of the Strategic

Transmission Corridors, a Basic Assessment (BA) process is required to be undertaken for the Aggeneys 1, Aggeneys 2, Bloemhoek 1 and Bloemhoek 2 projects in accordance with GN113 and GN114, as formally gazetted on 16 February 2018. An application will be submitted for each project.

The applications are required to be supported by comprehensive, independent environmental studies undertaken in accordance with the EIA Regulations, 2014, as amended.

ABO Wind Aggeneys 1 PV (Pty) Ltd and ABO Wind Aggeneys 2 PV (Pty) Ltd appointed Savannah Environmental, as the independent environmental consultant, to undertake the four Basic Assessments to identify and assess all potential environmental impacts associated with the projects and recommend appropriate mitigation measures in the Environmental Management Programmes (EMPRs). The public participation processes for the projects will be undertaken concurrently, providing the public with an opportunity to understand and comment on all four (4) projects. As part of the environmental studies, Interested and Affected Parties (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 developments, 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 registration and comment form. By registering on the project database, you will be kept informed of the BA process 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
(publicprocess@savannahsa.com)

Attached: Background Information Document
Registration and Comment Form

APRIL 2019

OMGEWINGSIMPAKEVALUERING
EN
OPENBARE DEELNAMEPROSES

ONTWIKKELING VAN

AGGENEYS 1 EN AGGENEYS 2
FV-SONKRAGAAANLEGTE EN
GEPAARDGAANDE
ROOSTERKONNEKSIE-OPLOSSINGS

NABY AGGENEYS, NOORD-KAAP

savannah
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AGTERGRONDINLIGTINGSDOKUMENT



Die ontwikkeling van twee aparte 100 MW fotovoltaïese (FV) sonkragaanlegte en gepaardgaande infrastruktuur word beoog op die Restant van die plaas Bloemhoek 61, wat sowat 11 km suidoos van Aggeneys in die Noord-Kaapprovinsie geleë is. Die twee sonkragaanlegte sal Aggeneys 1 en Aggeneys 2 heet, en is geleë in die Khâi-Ma Plaaslike Munisipaliteit, van die Namakwa Distriksmunisipaliteit en omstreke.

Die projekterrein is geleë in Sone 8 van die Hernubare Kragontwikkelingsones (REDZ) (ook bekend as die Springbok REDZ) en in die Noordelike Transmissiekorridor. Die prosedure wat gevolg moet word om aansoek te doen vir omgewingsmagtiging vir 'n grootskaalprojek in 'n REDZ, is op 16 Februarie 2018 formeel in die staatskoerant (Staatskennisgewing 113 en 114) afgekondig. Aangesien Aggeneys 1 en Aggeneys 2 in een van die agt REDZ-gebiede geleë is, is die projekte onderhewig aan 'n Basiese Evaluering en nie 'n volledige OIE-proses nie, asook 'n verkorte tydsraamwerk van 57 dae vir die verwerking van 'n Aansoek om Omgewingsmagtiging.

Elke FV-ontwikkeling sal ook 'n roosterkonneksie-oplossing en die vereiste roosterkonneksie-infrastruktuur insluit, wat bestaan uit 'n kollektorsubstasie en 'n enkelringkraglyn van hoogstens 220 kV om die aanleg met die nasionale kragnet te verbind – hierdie sal Bloemhoek 1 en Bloemhoek 2 heet. Die oprigting van 'n kollektorsubstasie en die oorhoofse kraglyn sal as twee aparte Basiese Evalueringprosesse geëvalueer word, wat uitvoerbare alternatiewe vir die kraglynroetes sal oorweeg.

Die evaluering van die roosterkonneksie-infrastruktuur sal onderneem word in 'n korridor wat hoogstens 1,5 km breed en hoogstens 17 km lank is.

Die ontwikkeling van Bloemhoek 1 en Bloemhoek 2 kan oor sewe eiendomme strek, wat insluit:

- » die Restant van die plaas Bloemhoek 61;
- » Gedeelte 1 van Bloemhoek 61;
- » Gedeelte 2 van Bloemhoek 61;
- » Gedeelte 3 van Bloemhoek 61;
- » Gedeelte 1 van die plaas Aggeneys 56;
- » Gedeelte 2 van die plaas Aggeneys 56; en
- » die Restant van die plaas Aggeneys 56.

Die aard en omvang van die vier (4) projekte, synde die twee FV-sonkragaanlegte en hul verwante roosterkonneksie-oplossings, word in meer besonderhede in hierdie dokument ondersoek. Die openbare deelnameprosesse vir die projekte sal gelyklopend onderneem word, wat die publiek 'n geleentheid bied om 'n begrip te vorm van en om kommentaar te lewer op al vier (4) projekte. Elk van die FV-sonkragaanlegprojekte sal as 'n aparte, losstaande projek met 'n aparte projekontwikkelingsmaatskappy (of Spesialedoelmedium (SDM) as Applikant vir elk van die projekte opgerig word. Die besonderhede is soos volg

Applikant:	Projeknaam:	Vermoë:
ABO Wind Aggeneys FV-1 (Edms.) Bpk.	Aggeneys 1 (FV-sonkragaanleg) Bloemhoek 1 (roosterkonneksie-infrastruktuur vir Aggeneys 1)	100 MW (gekontraheerde vermoë) Hoogstens 220 kV
ABO Wind Aggeneys FV-2 (Edms.) Bpk.	Aggeneys 2 (FV-sonkragaanleg) Bloemhoek 2 (roosterkonneksie-infrastruktuur vir Aggeneys 2)	100 MW (gekontraheerde vermoë) Hoogstens 220 kV

Die ontwikkelaar is van voorneme om elke FV-sonkragaanleg aan te bied ingevolge die Departement van Energie (DE) se Verkrygingsprogram vir Onafhanklike Hernubare Kragprodusente (REIPPP). Die idee is om die krag wat by elk van die FV-sonkragaanlegte opgewek sal word, aan Eskom te verkoop en by die nasionale kragnet in te voer. Die ontwikkeling van die aanlegte en roosterkonneksie-infrastruktuur sal ook bydra om die kragmengsel, soos uiteengesit in die Geïntegreerde Hulpbronneplan (IRP), te verwesenlik.

DOEL VAN HIERDIE AGTERGRONDINLIGTINGSDOKUMENT

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

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

OORSIG VAN DIE BEOOGDE PROJEKTE

In antwoord op die groeiende vraag na 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 twee 100 MW FV-sonkragaanlegte beoog. Die ontwikkeling van die aanlegte sal nuwe vermoë en transmissie-infrastruktuur by die nasionale kragnetwerk voeg.

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

- » reekse FV-panele met 'n gekontraheerde vermoë van hoogstens 100 MW;
- » monteerstrukture om die FV-panele te dra;
- » kables tussen die projekkomponente, wat ondergronds gelê sal word waar dit prakties is;
- » interne wisselrigters om die krag van 'n gelykstroom (GS) om te sit in 'n wisselstroom (WS);
- » 'n interne substasie om die konneksie tussen die FV-sonkragaanleg en Eskom se kragnet te bewerkstellig;
- » terreinkantore en instandhoudingsgeboue, wat werkswinkelgebiede vir instandhouding en berging insluit;
- » tydelike stapelwerwe; en
- » interne toegangspaaie en 'n heining om die projekterrein.

'n Kollektorsubstasie en 'n oorhoofse enkelringkraglyn met 'n transmissievermoë van hoogstens 220 kV wat elke aanleg met die Aggeneys Hooftransmissiesubstasie (HTS) sal verbind, word apart geëvalueer.

Studies eie aan die terrein en evaluering sal deur die BE-proses onderneem word ten einde potensieële sensitiewe gebiede in die breër gebied en in die geïdentifiseerde studiegebied aan te teken. Sodra beperkende faktore bepaal is, kan die uitleg van die FV-sonkragaanleg beplan word om maatskaplike en omgewingsimpakte tot die minimum te beperk.

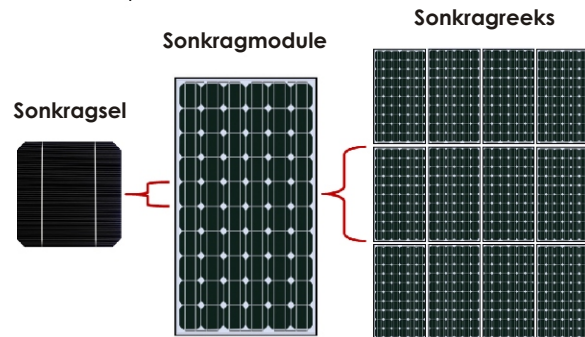


MEER OOR FV-SONKRAGTEGNOLOGIE

FV-sonkragaanlegte 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 sonselvelde van Aggeneys 1 en Aggeneys 2 sal uit die volgende komponente bestaan:

Fotovoltaïese Selle:

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. :



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

Wisselrigters:

Word gebruik om elektrisiteit wat deur die FV-selle opgewek word van gelykstroom (GS) na wisselstroom (WS) om te sit, sodat die aanleg met die nasionale kragnet verbind kan word. Verskeie wisselrigters sal in vele rangskikkings geplaas word om die krag wat by die aanlegte opgewek word, te versamel en om te sit.

Steunstrukture:

FV-panele kan hetsy vaste/stilstaande steunstrukture gebruik, of andersins kan hulle naspoordersteunstrukture gebruik. FV-panele wat vaste/stilstaande steunstrukture gebruik, word teen 'n hoek gestel (vaste-kanteling FV-stelsel) ten einde die hoeveelheid sonbestraling wat ontvang word, ten volle te benut. FV-panele wat naspoordersteunstrukture gebruik, volg die son se beweging deur die dag ten einde die maksimum hoeveelheid sonbestraling te ontvang.

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

OMGEWINGSIMPAKEVALUERINGSPROSES

Ooreenkomstig die 2014 OIE-regulasies (Staatskennissgewing 326) wat kragtens Artikel 24(5) van die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA) gepubliseer is, verg

die Applikante Omgewingsmagtiging (OM) van die Nasionale Departement van Omgewingsake (DO), 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 (Staatskennissgewing 326), Staatskennissgewing 114 en Lyskennissgewings (Staatskennissgewing 324, 325 en 327), is die aansoeke om OM vir Aggeneys 1 en Aggeneys 2 onderhewig aan die voltooiing van 'n Basiese Evalueringsproses (BE) aangesien die projekte in die Springbok REDZ geleë is. Aparte aansoeke om OM sal vir elk van die FV-sonkragaanlegte en elk van die roosterkonneksie-oplossings, d.i. altesaam vier aansoeke, by die DO ingedien word. Elke aansoek moet gerugsteun word deur omvattende, onafhanklike omgewingstudies wat ingevolge die 2014 OIE-regulasies (Staatskennissgewing 326) onderneem word.

'n BE is 'n doeltreffende beplannings- en besluitnemingswerktuig. Dit bring mee dat potensieële 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 potensieële 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 tussen sleutelbelanghebbers en belangstellende en geaffekteerde partye (B&GP's).

Savannah Environmental is aangestel as onafhanklike omgewingskonsultante wat verantwoordelik is vir die bestuur van die aparte aansoeke om OM en om die stawende BE-proses te onderneem wat vereis word om alle potensieële 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 Omgewingsbestuursprogramme (OBPr'e) vervat moet word. Deur die openbare deelnameproses, sal B&GP's aktief betrokke wees in die BE-prosesse.

WAT IS DIE POTENSIEËLE OMGEWINGSIMPAKTE WAT VERBAND HOU MET DIE BEOOGDE PROJEKTE?

Die projekterreine en die beoogde korridor 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 in:

- » ekologie;
- » avifauna;
- » varswater;
- » grondsoorte, grondgebruik en landboupotensiaal;
- » erfenis (argeologie en paleontologie);
- » visueel; en
- » maatskaplik.

Die onafhanklike spesialisstudies sal onderneem word waarin die potensieel wesenlike impakte geëvalueer en ter plaaste getoets sal word. Praktiese en uitvoerbare versagtingsmaatreëls sal aanbeveel word ten einde die wesenlikheid van die potensieële

impakte wat geïdentifiseer is, te minimaliseer. Hierdie aanbevelings sal in 'n Omgewingsbestuursprogram (OBPr) vervat word, wat vir elk van die projekte saamgestel 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-proses betrokke te raak. Kommentaar en insette van B&GP's word aangemoedig ten einde te verseker dat oorweging aan potensiële impakte regdeur die BE-proses geskenk word.

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 oor die beoogde projekte; en
- » toereikende insaetydperke aan B&GP's gebied word om kommentaar te lewer oor 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 terreinkennissgewings 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 OIE-projekspan te skakel; en
- » verwittiging van B&GP's van die DO 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 OIE-regulasies, 2014 (Staatskennissgewing 326), 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, bekend maak.

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 sperdatums 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 insette 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

Om projekdokumentasie na te gaan, besoek
www.savannahSA.com

Aggeneys 1 and Aggeneys 2 Solar PV Facilities and Bloemhoek 1 and Bloemhoek 2 Grid Connection Solutions, Northern Cape

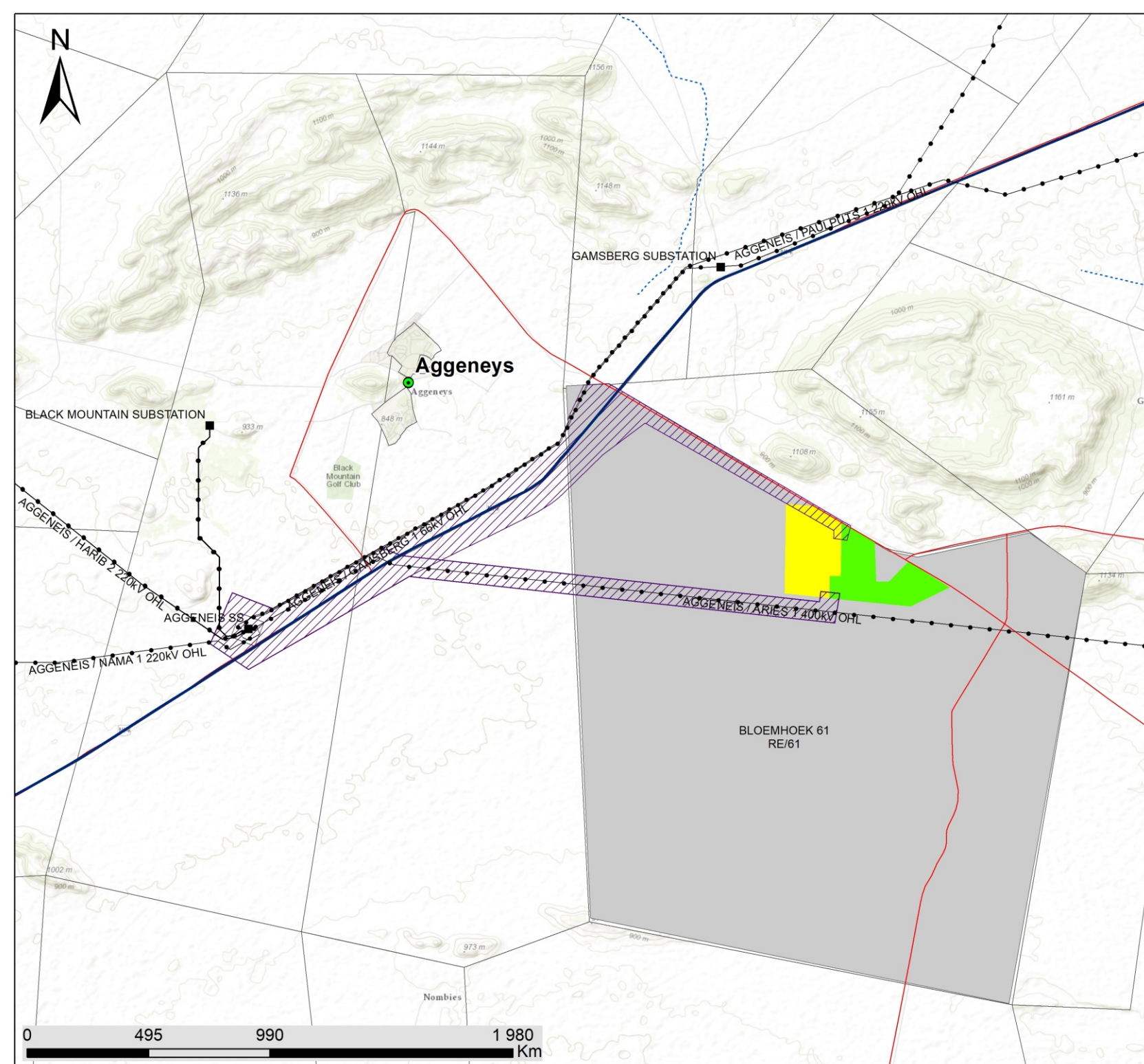
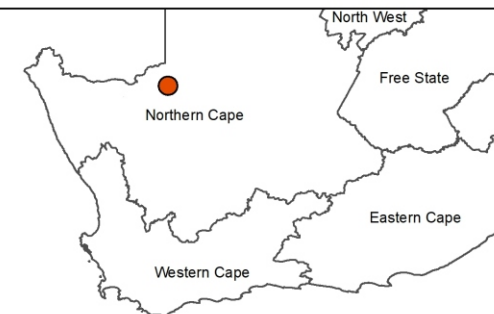
Locality Map

Legend

- Town
- Eskom Substation
- Existing Power Line
- National Route
- Main Road
- Non-perennial River
- Farm Portion
- Project Site
- Aggeneys 1 Development Area (251ha)
- Aggeneys 2 Development Area (249ha)
- ▨ Power Line Corridor

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Scale: 1:15 000 000
Projection: LO19
Map Ref: Aggeneys 1 PV - Locality Map - 28.11.18



APRIL 2019

ENVIRONMENTAL IMPACT ASSESSMENT
AND
PUBLIC PARTICIPATION PROCESS

DEVELOPMENT OF

AGGENEYS 1 AND AGGENEYS 2
SOLAR PV FACILITIES AND
ASSOCIATED GRID CONNECTION SOLUTIONS

NEAR AGGENEYS, NORTHERN CAPE

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BACKGROUND INFORMATION DOCUMENT



The development of two separate 100MW solar photovoltaic (PV) facilities and associated infrastructure is proposed on the Remaining Extent of the Farm Bloemhoek 61, located approximately 11km south-east of Aggeneys in the Northern Cape Province. The two solar PV facilities are to be known as Aggeneys 1 and Aggeneys 2, and are situated within the Khâi-Ma Local Municipality, of the greater Namakwa District Municipality.

The project site is located within Zone 8 of the Renewable Energy Development Zones (REDZ) (also known as the Springbok REDZ), and within the Northern Transmission Corridor. The procedure to be followed in applying for environmental authorisation for a large-scale project in a REDZ was formally gazetted on 16 February 2018 (in GN113 and GN114). As Aggeneys 1 and Aggeneys 2 are located within one of the eight REDZ areas, the projects are subject to a Basic Assessment and not a full EIA process, as well as a shortened timeframe of 57 days for the processing of an Application for Environmental Authorisation.

Each PV development will also include a grid connection solution and the required grid connection infrastructure which consists of a collector substation and a single-circuit power line up to 220kV to connect the facility to the national grid – these will be known as Bloemhoek 1 and Bloemhoek 2. The construction of a collector substation and the overhead power line will be assessed as part of two separate Basic Assessment processes, which will consider feasible alternatives for the power line routes.

The assessment of the grid connection infrastructure will be undertaken within a corridor with a width of up to 1.5km and a length of up to 17km. Seven properties may be traversed by the development of Bloemhoek 1 and Bloemhoek 2, and these include:

- » Remaining Extent of the Farm Bloemhoek 61
- » Portion 1 of Bloemhoek 61
- » Portion 2 of Bloemhoek 61
- » Portion 3 of Bloemhoek 61
- » Portion 1 of the Farm Aggeneys 56
- » Portion 2 of the Farm Aggeneys 56
- » Remaining Extent of the Farm Aggeneys 56

The nature and extent of the four (4) projects – that is, the two solar PV facilities and their associated grid connection solutions are explored in more detail in this document. The public participation processes for the projects will be undertaken concurrently, providing the public with an opportunity to understand and comment on all four (4) projects. Each of the solar PV facility projects 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 details are:

Applicant:	Project Name:	Capacity:
ABO Wind Aggeneys 1 PV (Pty) Ltd	Aggeneys 1 (solar PV facility) Bloemhoek 1 (grid connection infrastructure for Aggeneys 1)	100MW (contracted capacity) Up to 220kV
ABO Wind Aggeneys 2 PV (Pty) Ltd	Aggeneys 2 (solar PV facility) Bloemhoek 2 (grid connection infrastructure for Aggeneys 2)	100MW (contracted capacity) Up to 220kV

It is the Developer's intention to bid each solar PV facility under the Department of Energy's (DoE) Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). The power generated from each solar PV facility is intended to be sold to Eskom and fed into the national electricity grid. The development of the facilities and grid connection infrastructure will also assist with achieving the energy mix as set out in the Integrated Resources 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 infrastructure.
 - » An overview of the Basic Assessment (BA) process and specialist studies being undertaken to assess the projects.
 - » Details of how you can become involved in the BA process, receive information, or raise issues that may concern and/or interest you.

OVERVIEW OF THE PROPOSED PROJECTS

In response to the growing electricity demand within 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 two 100MW solar PV facilities is proposed. The development of the facilities will add new capacity and transmission infrastructure to the national electricity grid network.

Infrastructure associated with each solar PV facility will include:

- » Arrays of PV panels with a contracted capacity of up to 100MW.
- » Mounting structures to support the PV panels.
- » Cabling between the project components, to be laid underground where practical.
- » On-site inverters to convert the power from a direct current (DC) to an alternating current (AC).
- » An on-site substation to facilitate the connection between the solar PV facility and the Eskom electricity grid.
- » Site offices and maintenance buildings, including workshop areas for maintenance and storage.
- » Temporary laydown areas.
- » Internal access roads and fencing around the project site.

A collector substation and an overhead single-circuit power line with a transmission capacity of up to 220kV connecting each facility to the Aggeneys Main Transmission Substation (MTS) is assessed separately.

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



MORE ABOUT SOLAR PV TECHNOLOGY

Solar PV facilities 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 Aggeneys 1 and Aggeneys 2 will comprise the following components:

Photovoltaic Cells:

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.

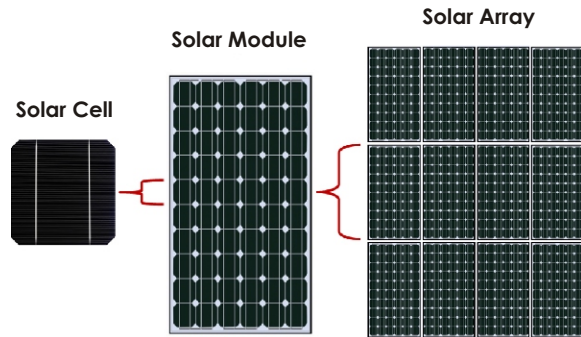


Figure 1: Overview of a PV cell, module and array/panel (Source: pveducation.com)

Inverters:

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. Numerous inverters will be arranged in several arrays to collect and convert power produced by the facilities.

Support Structures:

PV panels can either utilise fixed / static support structures, or alternatively they can utilise tracking support structures. PV panels which utilise fixed / static support structures are set at an angle (fixed-tilt PV system) so as to optimise the amount of solar irradiation received. PV panels which utilise tracking support structures track the movement of the sun throughout the day so as to receive the maximum amount of solar irradiation.

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

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

In accordance with the 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 Environmental Affairs (DEA) 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 (GNR 326), the Government Notice (R114) and Listing Notices (GNR 327, GNR 325, and GNR 324), the applications for EA for Aggeneys 1 and Aggeneys 2 are subject to the completion of a Basic Assessment (BA) process, as the projects are located within the Springbok REDZ. Separate applications for EA will be submitted to the DEA for each of the solar PV facilities and each of the grid connection solutions – that is four applications in total. Each application is required to be supported by comprehensive, independent environmental studies undertaken in accordance with the 2014 EIA Regulations (GNR 326).

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 process 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 project sites and the proposed 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:

- » Ecology
- » Avifauna
- » Freshwater
- » Soils, Land Use, and Agricultural Potential
- » Heritage (Archaeology and Palaeontology)
- » Visual
- » Social

The independent specialist studies will be undertaken wherein the potentially significant impacts will be 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 each of the 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 process. Comments and inputs from I&APs are encouraged in order to ensure that potential impacts are considered throughout the BA process. 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 property/ies.
- » 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 EIA project team.
- » Notifying I&APs of DEA'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), 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

PO Box 148, Sunninghill, Johannesburg, 2157

Phone: 011 656 3237

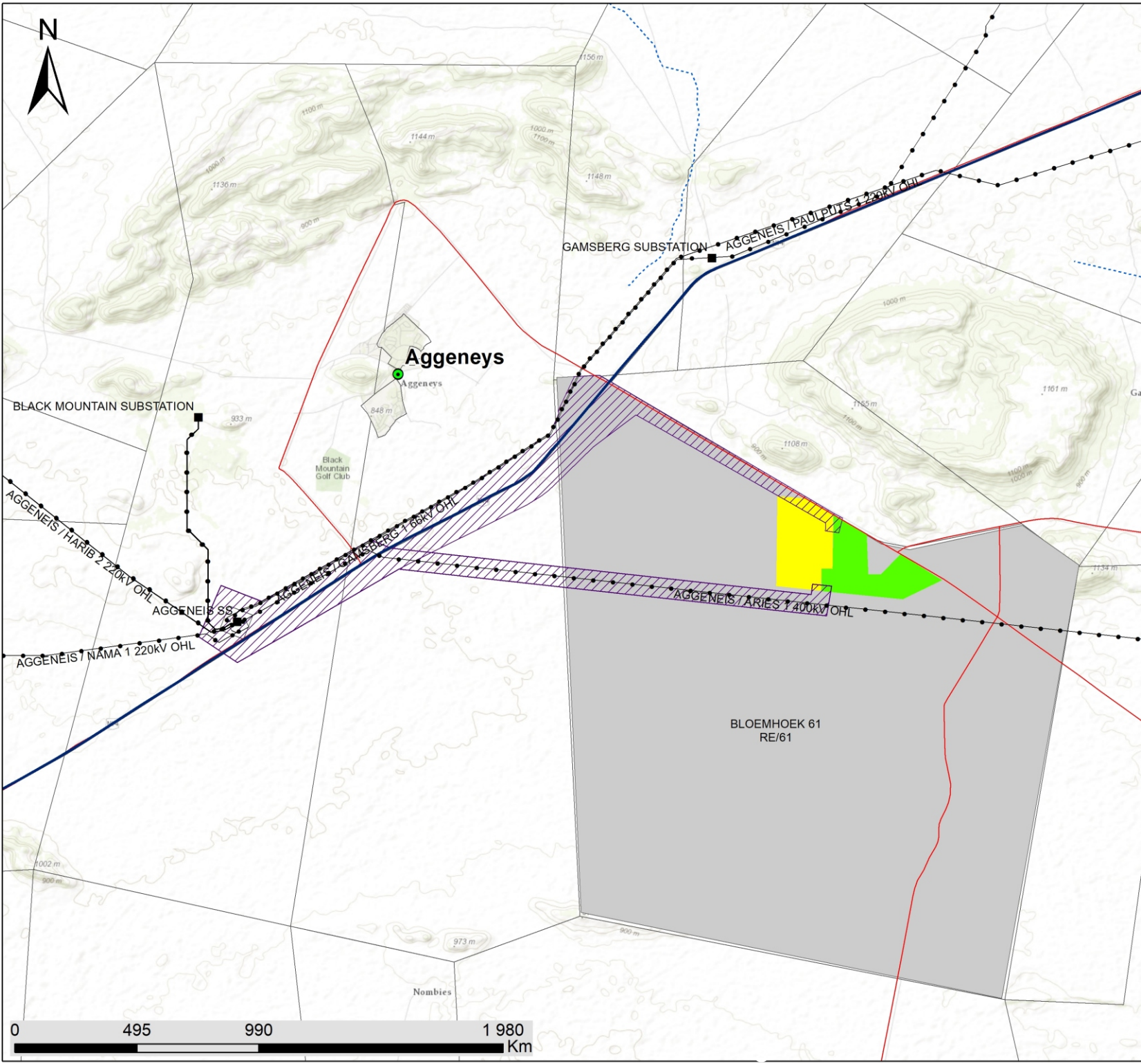
Fax: 086 684 0547

E-mail: publicprocess@savannahsa.com

To view project documentation, visit

www.savannahSA.com

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Aggeneys 1 and Aggeneys 2 Solar PV Facilities and Bloemhoek 1 and Bloemhoek 2 Grid Connection Solutions, Northern Cape

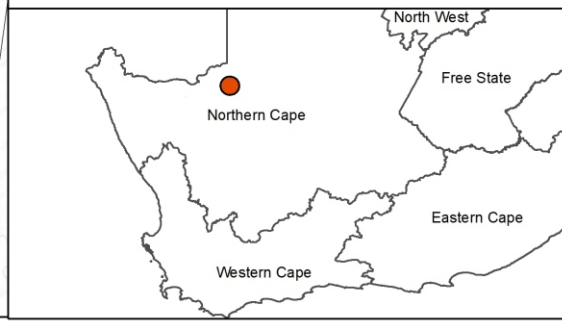
Locality Map

Legend

- Town
- Eskom Substation
- Existing Power Line
- National Route
- Main Road
- - - Non-perennial River
- Farm Portion
- Project Site
- Aggeneys 1 Development Area (251ha)
- Aggeneys 2 Development Area (249ha)
- Power Line Corridor



Scale: 1:15 000 000
 Projection: LO19
 Map Ref: Aggeneys 1 PV - Locality Map - 28.11.18



BASIC ASSESSMENT AND PUBLIC PARTICIPATION PROCESS

**AGGENEYS 1 and AGGENEYS 2 SOLAR PVs AND ASSOCIATED GRID CONNECTION SOLUTIONS
NEAR AGGENEYS, NORTHERN CAPE PROVINCE**

Registration & Comment Form

April 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:			

Would you like to register as an interested and affected party (I&AP)? YES
 (please tick the relevant box) NO

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 project 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 the project (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:			

BASIESE EVALUERING EN OPENBARE DEELNAMEPROSES

**ONTWIKKELING VAN AGGENEYS 1 EN AGGENEYS 2 FV-SONKRAGAAANLEGTE EN
GEPAARDGAANDE ROOSTERKONNEKSIE-OPLOSSINGS NABY AGGENEYS, NOORD-KAAP
PROVINSIE**

REGISTRASIE- EN KOMMENTAARVORM

Stuur voltooide registrasie- en kommentaarvorm aan: **Nicolene Venter** by **Savannah Environmental**

Faks: **086 699 5796**

Telefoon: **011 6563237**

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

Posadres: **Posbus 148 Sunninghill 2157**

Verskaf asseblief u persoonlike kontak besonderhede:

Naam & Van:		
Organisasie		
Amptitel / Rol		
Posadres:		
Telefoon:		Faks:
Selfoon:		
E-pos:		

Stel u belang om te registreer as 'n belangstellende en/of geaffekteerde party (B&GP)? (Merk met X) JA
NEE

Nota: Dit word van u vereis om te registreer as 'n B&GP om alle toekomstige inligting in verband met die BE te ontvang.

Verduidelik u belangstelling in hierdie projek (gebruik addisionele bladsye indien nodig):

Lys u kommentaar met hierdie projek (gebruik addisionele bladsye indien nodig):

Verskaf bykommende kontak besonderhede van addisionele persoon/e wie u beskou as potensiële belangstellende en/of geaffekteerde partye:

Naam & Van:		
Organisasie & Rol:		
Posadres:		
Telefoon:		Faks:
Selfoon:		
E-pos:		

SEE REVERSE SIDE FOR ENGLISH