



## **environmental affairs**

Department:  
Environmental Affairs  
**REPUBLIC OF SOUTH AFRICA**

Private Bag X 447· PRETORIA · 0001· Environment House · 473 Steve Biko, Arcadia· PRETORIA  
Tel (+ 27 12) 399 9372

**DEA Reference:** 14/12/16/3/3/2/905

**Enquiries:** Mmamohale Kabasa

**Telephone:** (012) 399 9420 **E-mail:** MKabasa@environment.gov.za

Ms Jo-Anne Thomas  
Savannah Environmental (Pty) Ltd  
PO Box 148  
**SUNNINGHILL**  
2157

Telephone Number: (011) 656 3237  
Email Address: joanne@savannahsa.com

### **PER E-MAIL / MAIL**

Dear Ms Thomas

### **COMMENTS ON THE DRAFT SCOPING REPORT FOR THE PROPOSED 150 MW ILANGA CSP 7 FACILITY EAST OF THE TOWN OF UPINGTON WITHIN THE //KHARA HAIS AND THE !KHEIS LOCAL MUNICIPALITIES WITHIN THE ZF MGCAWU DISTRICT MUNICIPALITY IN THE NORTHERN CAPE PROVINCE**

The draft Scoping Report (SR) dated January 2016 and received by this Department on 27 January 2016 refers.

This Department has the following comments on the abovementioned application:

- i. Please ensure that all relevant listed activities are applied for, are specific and that it can be linked to the development activity or infrastructure as described in the project description.
- ii. If the activities applied for in the application form differ from those mentioned in the final SR, an amended application form must be submitted. Please note that the Department's application form template has been amended and can be downloaded from the following link <https://www.environment.gov.za/documents/forms>.
- iii. Please ensure that all issues raised and comments received during the circulation of the SR from registered I&APs and organs of state which have jurisdiction (including this Department's Biodiversity Section) in respect of the proposed activity are adequately addressed in the final SR. Proof of correspondence with the various stakeholders must be included in the final SR. Should you be unable to obtain comments, proof should be submitted to the Department of the attempts that were made to obtain comments. The Public Participation Process must be conducted in terms of Regulation 39, 40 41, 42, 43 & 44 of the EIA Regulations 2014.
- iv. The final SR must include a comments and response report.
- v. The EAP must provide detailed motivation and reasons on the applicability of Item 14 of GN R. 983 and 6 of GN R. 984. In addition, the impacts, and any specialist study to assess the impacts for these activities must be provided in the draft EIAR.
- vi. GN R.983 Item 19: With regards to infilling and excavation of watercourses for the construction of the CSP Energy facility, this Department requires the applicant to provide an indication of the preferred and

- alternate locations from which the material used for infilling will be sourced and where excavated material will be stored and/or disposed of.
- vii. The listed activities represented in the final SR and the application form must be the same and correct.
  - viii. It is noted that no activity under GN R 985 is being applied for. However, should they at a later stage be found to be applicable, an amended application form as well as written comments must be obtained and submitted to this Department confirming their applicability to the proposed development. In addition, a graphical representation of the proposed development within the respective geographical areas must be provided.
  - ix. The specialist studies conducted must be specific to each of the sites applied for. The specialist must provide recommendations and mitigation measures specific to each site and the EAP must provide mitigation measures; an assessment and recommendations for each site as well as the cumulative impacts for each of the facilities.
  - x. The following activities applied for may trigger Section 19 and Section 21 of the National Water Act No. 36 of 1998: GN R. 983 Activities 12 and 19. The hydrological assessment to be conducted must also assess the impacts on the surface hydrology of the proposed development area. The terms of reference for the study must include, *inter alia* the following:
    - Identification and sensitivity rating of all surface water courses for the impact phase of the proposed development;
    - Identification, assessment of all potential impacts to the water courses and suggestion of mitigation measures; and,
    - Recommendations on the preferred placement of the facility and all associated infrastructure and preference must be provided to the avoidance of the watercourses on the property.
  - xi. It is imperative that a reliable water source is secured for the success of this project. The Department requests proof of availability of water for the facility from the relevant authority.
  - xii. The final SR must provide a comparative analysis for alternative water sources for the proposed development. The preferred water source alternative must further motivate the preferred technology choice for the facility.
  - xiii. A cumulative assessment must be undertaken for the sourcing of water as there are numerous other facilities in the region.
  - xiv. Should a water abstraction point in the Orange River and a pipeline to pipe the water to the facility be required, the impact of these must be assessed.
  - xv. This Department requires a cumulative impact assessment to be undertaken in the final SR to determine potential fatal flaws.
  - xvi. The terms of reference of the Avifaunal Assessment to be conducted must include, *inter alia* the following:
    - Determine the impacts that the proposed activity (including the powerline) may have on avifauna;
    - Must cover at a minimum the summer and winter seasons;
    - The assessment must include mitigation measures to discourage the avifauna from entering the solar field as well and limit nesting and breeding grounds within the solar field.
    - The avifaunal specialist study must be expanded to include vantage point surveys as well as flight paths to consider how birds will move through the property. The study must also propose adequate mitigation measures to reduce the facilities impacts on avifauna frequenting the area.
    - Assess the cumulative impact on avifauna within the site and within the local area.
  - xvii. An Agricultural Specialist Study must be conducted. The terms of reference for the study must include, *inter alia* the following:
    - Assessment of the loss of agricultural land;
    - The current state of agricultural activities on land;
    - The impact of the loss of agricultural land within the property as well as the cumulative impact of the loss of agricultural land on the site and within the area.
  - xviii. Should in-house specialists be used for any specialist study, the specialist study must be peer reviewed by external specialists.

- xix. This Department requests the EAP to familiarise themselves with the requirements of Appendix 2 of GNR 982 of the EIA Regulations, 2014 and ensure that the final SR submitted to this Department for consideration meets the requirements in terms of identifying, assessing and providing mitigation measures of the impacts on the alternative and preferred sites.
- xx. Please provide a description of any identified alternatives for the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives will have on the environment and on the community that may be affected by the activity as per Appendix 2 of GN R.982 of 2014. Alternatively, you should submit written proof of an investigation and motivation if no reasonable or feasible alternatives exist in terms of Appendix 2.
- xxi. A significant amount of materials and equipment will be delivered to the site during the construction phase of the development. A traffic assessment study must be done. The study must determine the specific traffic needs during the different phases of implementation.
- xxii. In accordance with Appendix 2 of the EIA Regulations 2014, the details of—
  - (i) the EAP who prepared the report; and
  - (ii) the expertise of the EAP to carry out the Scoping and Environmental Impact assessment procedures;
 must be submitted.
- xxiii. You are further reminded that the final SR to be submitted to this Department must comply with all the requirements in terms of the scope of assessment and content of Scoping reports in accordance with Appendix 2 and Regulation 21(1) of the EIA Regulations, 2014.
- xxiv. Further note that in terms of Regulation 45 of the EIA Regulations 2014, this application will lapse if the applicant fails to meet any of the timeframes prescribed in terms of these Regulations, unless an extension has been granted in terms of Regulation 3(7).

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours faithfully



**Mr Sabelo Malaza**  
**Chief Director: Integrated Environmental Authorisations**  
**Department of Environmental Affairs**  
**Signed by: Mr Muhammad Essop**  
**Designation: Deputy Director (Acting): Strategic Infrastructure Developments**  
**Date: 24/02/2016**

cc:	P Ndebele	Emvelo Eco Projects (Pty) Ltd	Email: pancho@emvelo.co.za
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Ms Jo-Anne Thomas  
Savannah Environmental (Pty) Ltd  
PO Box 148  
**SUNNINGHILL**  
2157

Telephone Number: (011) 656 3237  
Email Address: joanne@savannahsa.com

## PER EMAIL / MAIL

Dear Ms Thomas

### **ACCEPTANCE OF THE SCOPING REPORT FOR THE PROPOSED 150 MW ILANGA CSP 7 TOWER ON PORTION 2 OF THE FARM MATJIESRIVIER 41 AND 4 OF THE FARM TROOILAPS PAN 53 SOUTH EAST OF THE TOWN OF UPINGTON WITHIN THE !KHEIS AND KHARA HAIS LOCAL MUNICIPALITIES IN THE NORTHERN CAPE PROVINCE**

The Scoping Report (SR) and Plan of Study for Environmental Impact Assessment (PoSEIA) dated March 2016 and received by this Department on 10 March 2016 refers.

This Department has evaluated the submitted SR and the PoSEIA dated March 2016 and is satisfied that the documents comply with the minimum requirements of the Environmental Impact Assessment (EIA) Regulations, 2014. The SR is hereby accepted by the Department in terms of Regulation 22(a) of the EIA Regulations, 2014.

You may proceed with the EIA process in accordance with the tasks contemplated in the PoSEIA and the requirements of the EIA Regulations, 2014.

All comments and recommendations made by all stakeholders and Interested and Affected Parties (I&APs) in the draft SR and submitted as part of the final SR must be taken into consideration when preparing an Environmental Impact Assessment report (EIAR) in respect of the proposed development. Please ensure that all mitigation measures and recommendations in the specialist studies are addressed and included in the final EIAR and Environmental Management Programme (EMPr).

Please ensure that comments from all relevant stakeholders are submitted to the Department with the final EIAR. This includes but is not limited to the Northern Cape Department of Environment and Nature Conservation, the Department of Agriculture, Forestry and Fisheries (DAFF), the provincial Department of Agriculture, the South African Civil Aviation Authority (SACAA), SENTECH, the Department of Transport, the Local Municipalities, the District Municipality, the Department of Water and Sanitation (DWS), the South African National Roads Agency Limited (SANRAL), the South African Heritage Resources Agency (SAHRA), the Endangered Wildlife Trust (EWT), BirdLife SA, the Department of Mineral Resources, the Department of Rural Development and Land Reform, the Department of Environmental Affairs: Directorate Biodiversity and Conservation and the Square Kilometre Array (SKA).

Please be advised that the contact person for renewable projects at the SKA office is Dr Adrian Tiplady and he can be contacted on Tel: (011) 442 2434 or E-mail: atiplady@ska.ac.za.

Please ensure that the EIAr and EMPr comply with Appendix 3 and Appendix 4 of Regulation 2014, before submission to the Department. You are also required to address all issues raised by organs of state and I&APs prior to the submission of the EIAr to the Department.

Proof of correspondence with the various stakeholders must be included in the EIAr. Should you be unable to obtain comments, proof should be submitted to the Department of the attempts that were made to obtain comments.

The EAP must, in order to give effect to Regulation 8, give registered I&APs access to, and an opportunity to comment on the report in writing within 30 days before submitting the final EIAr to the Department.

In addition, the following additional information is required for the EIAr:

- (i) The EAP must provide detailed motivation and reasons on the applicability of Activity 14 of GN R. 983. In addition, the impacts, and any specialist study to assess the impacts for these activities must be provided in the draft EIAr.
- (ii) GN R.983 Activity 19: With regards to infilling and excavation of watercourses for the construction of the CSP energy facility, this Department requires the applicant to provide an indication of the preferred and alternate locations from which the material used for infilling will be sourced and where excavated material will be stored and/or disposed of. In addition, the impacts associated with this activity must be adequately assessed in the EIAr.
- (iii) The draft EIAr must provide an assessment of the impacts and mitigation measures for each of the listed activities applied for.
- (iv) The listed activities represented in the EIAr and the application form must be the same and correct.
- (v) It is noted that no activity under GN R 985 is being applied for. However, should they at a later stage be found to be applicable, an amended application form as well as written comments from the relevant competent authority must be obtained and submitted to this Department. In addition, a graphical representation of the proposed development within the respective geographical areas and assessment of the significance of impacts on these areas must be provided.
- (vi) The EIAr must provide the technical details for the proposed facility in a table format as well as their description and/or dimensions. A sample for the minimum information required is listed under point 2 of the EIA information required for CSP facilities below.
- (vii) The EIAr must provide the four corner coordinate points for the proposed development site (note that if the site has numerous bend points, at each bend point coordinates must be provided) as well as the start, middle and end point of all linear activities.
- (viii) The EIAr must provide the following:
  - Clear indication of the envisioned area for the proposed CSP facility; i.e. placing of power tower, heliostats and all associated infrastructure should be mapped at an appropriate scale.
  - Clear description of all associated infrastructure. This description must include, but is not limited to the following:
    - Power lines;
    - Internal roads infrastructure; and;
    - All supporting onsite infrastructure such as laydown area, guard house and control room etc.
    - All necessary details regarding all possible locations and sizes of the proposed satellite substation and the main substation.
- (ix) This Department requires comments from the South African SKA Project Office to be included in the EIAr.
- (x) The Department requires that an off-set be negotiated between the Northern Cape Department of Environment and Nature Conservation and the Department of Agriculture, Forestry and Fisheries. The offset must investigate the cumulative loss of species from all eight facilities, and must be finalised, agreed to and be included within the draft EIAr.

- (xi) The following specialist studies have been identified to be conducted as part of the environmental impact assessment reports:
  - Ecological study;
  - Avifaunal impact assessment;
  - Aquatic assessment;
  - Hydrology and hydraulic assessment;
  - Heritage impact assessment;
  - Visual impact assessment;
  - Social impact assessment;
  - Cumulative impact study; and
  - Traffic impact assessment.
- (xii) This Department requires comments from the Department of Water and Sanitation, from the Impact Management and Resource Management Directorates to be included in the EIAr.
- (xiii) The terms of reference for the hydrological study appended to the SR extensively describes the surface aquatic state of the Orange River, but does not describe the surface aquatic state of the property affected by the proposed development. The terms of reference must comply with comment x of the Department's comments on the draft scoping report dated 29 February 2016.
- (xiv) It is imperative that a reliable water source is secured for the success of this project. The Department requests proof of availability of water for the facility from the relevant authority.
- (xv) The EIAr must adequately assess and provide a comparative analysis for alternative water sources for the proposed development. The preferred water source alternative must further motivate the preferred technology choice for the facility.
- (xvi) A cumulative assessment must be undertaken for the sourcing of water as there are numerous other facilities in the region.
- (xvii) Should a water abstraction point in the Orange River and a pipeline to pipe the water to the facility be required, the impact of these must be assessed.
- (xviii) A cumulative assessment must be undertaken to assess the cumulative loss of agricultural land from all eight facilities.
- (xix) The following amendments must be made to the terms of references for the specialist studies:
  - Ecology
    - Site inspection to assess the site and in particular, the areas that are identified as potential risk areas. The site inspection must also gather the necessary information relating to the status of the drainage features (natural and man-made) and existing water storage facilities on site.
    - The ecological study must assess the viability of an off-set as required by DAFF. The terms of reference for the off-set identification must be agreed to by DAFF and DENC and must be submitted to this Department for approval before the submission of the draft EIAr.
  - Avifaunal: The terms of reference for the avifaunal study must comply with condition xvi of the Department's comments on the draft scoping report dated 29 February 2016.
  - Social impact assessment: The terms of reference must indicate plans for social upliftment projects. These plans must be identified in consultation with the relevant local municipality department.
  - Traffic impact management: A significant amount of materials and equipment will be delivered to the site during the construction phase of the development and will thus have impacts on the environment. The impacts of this activity must be fully identified and assessed. A traffic impact assessment must form part of the EIAr and the terms of reference must include, inter alia the following:
    - Evaluate the impacts of the proposed development on existing road network and traffic volumes. The study must determine the specific traffic needs during the different phases of implementation, namely facility construction and installation, operation and decommissioning.
    - Identify the position and suitability of the preferred access road alternative.
    - Evaluate the roadway capacity of the road network.
    - Confirm the associated clearances required for the necessary equipment to be transported from the point of delivery to the various sites.
    - Confirm freight and transport requirements during construction, operation and maintenance.

- Propose origins and destinations of equipment.
  - Determine (Abnormal) Permit requirements if any.
- (xx) Should in-house specialists be used for any specialist study, then the specialist study must be peer reviewed by external specialists. The format of the peer-review must address the following:
- Acceptability of the ToRs;
  - Is the methodology clearly explained and acceptable?
  - Evaluate the validity of the findings (review data evidence);
  - Discuss the mitigation measures and recommendations;
  - Evaluate the appropriateness of the reference literature;
  - Is the article well-written and easy to understand? and
  - Identify any short comings.
- (xxi) The EIAR must also include a comments and response report in accordance with Appendix 2 h (iii) of the EIA Regulations, 2014.
- (xxii) The EIAR must include the detail inclusive of the PPP in accordance with Regulation 41 of the EIA Regulations.
- (xxiii) Details of the future plans for the site and infrastructure after decommissioning in 20-30 years and the possibility of upgrading the proposed infrastructure to more advanced technologies.
- (xxiv) Information on services required on the site, e.g. sewage, refuse removal, water and electricity. Who will supply these services and has an agreement and confirmation of capacity been obtained? Proof of these agreements must be provided.
- (xxv) The EIAR must provide a detailed description of the need and desirability, not only providing motivation on the need for clean energy in South Africa of the proposed activity. The need and desirability must also indicate if the proposed development is needed in the region and if the current proposed location is desirable for the proposed activity compared to other sites.
- (xxvi) A copy of the final site layout map and alternatives. All available biodiversity information must be used in the finalisation of the layout map. Existing infrastructure must be used as far as possible e.g. roads. The layout map must indicate the following:
- Power tower and heliostats positions and its associated infrastructure;
  - Positions of the power island, steam turbine and generator, molten salt storage tanks, water storage reservoir and tanks, lined evaporation ponds and water supply pipeline;
  - Permanent laydown area footprint;
  - Internal roads indicating width (construction period width and operation period width) and with numbered sections between the other site elements which they serve (to make commenting on sections possible);
  - Wetlands, drainage lines, rivers, stream and water crossing of roads and cables indicating the type of bridging structures that will be used;
  - The location of sensitive environmental features on site e.g. CBAs, heritage sites, wetlands, drainage lines etc. that will be affected by the facility and its associated infrastructure;
  - Substation(s) and/or transformer(s) sites including their entire footprint;
  - Connection routes (including pylon positions) to the distribution/transmission network;
  - All existing infrastructure on the site, especially roads;
  - Buffer areas;
  - Buildings, including accommodation; and
  - All “no-go” areas.
- (xxvii) An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- (xxviii) A map combining the final layout map superimposed (overlain) on the environmental sensitivity map.
- (xxix) A shapefile of the preferred development layout/footprint must be submitted to this Department. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 (please specify

if an alternative scale was used). The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title. The shape file must be submitted to:

**Postal Address:**

Department of Environmental Affairs  
Private Bag X447  
Pretoria  
0001

**Physical address:**

Environment House  
473 Steve Biko Road  
Pretoria

For Attention: Muhammad Essop  
Integrated Environmental Authorisations  
Strategic Infrastructure Developments  
Telephone Number: (012) 399 9406  
Email Address: MEssop@environment.gov.za

The Environmental Management Programme (EMPr) to be submitted as part of the EIAr must include the following:

- i. All recommendations and mitigation measures recorded in the EIAr and the specialist studies conducted.
- ii. The final site layout map.
- iii. Measures as dictated by the final site layout map and micro-siting.
- iv. An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- v. A map combining the final layout map superimposed (overlain) on the environmental sensitivity map.
- vi. An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
- vii. A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site and be implemented prior to commencement of the construction phase.
- viii. A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility. Restoration must be undertaken as soon as possible after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- ix. An open space management plan to be implemented during the construction and operation of the facility.
- x. A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
- xi. A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
- xii. A fire management plan to be implemented during the construction and operation of the facility.



- xiii. An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
- xiv. An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
- xv. Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.

The EAP must provide detailed motivation if any of the above requirements is not required by the proposed development and not included in the EMPr.

The EAP must provide the final detailed Site Layout Plan as well as the final EMPr for approval with the final EIAr as this Department needs to make a decision on the EIAr, EMPr and Layout Plan.

The EIAr must include a **cumulative impact assessment** of the facility since there are other similar facilities in and around the proposed site as well as in the region. The specialist studies as outlined in the PoSEIA which is incorporated as part of the SR must also assess the facility in terms of potential cumulative impacts.

Please ensure that all the relevant Listing Notice activities are applied for, that the Listing Notice activities applied for are specific and that they can be linked to the development activity or infrastructure in the project description.

You are hereby reminded that should the EIAr fail to comply with the requirements of this acceptance letter, the project will be **refused** in accordance with Regulation 24(1)(b) of the EIA Regulations, 2014.

The applicant is hereby reminded to comply with the requirements of Regulation 45 with regard to the time period allowed for complying with the requirements of the Regulations, and Regulations 43 and 44 with regard to the allowance of a comment period for interested and affected parties on all reports submitted to the competent authority for decision-making. The reports referred to are listed in Regulation 43(1).

Furthermore, it must be reiterated that, should an application for Environmental Authorisation be subject to the provisions of Chapter II, Section 38 of the National Heritage Resources Act, Act 25 of 1999, then this Department will not be able to make nor issue a decision in terms of your application for Environmental Authorisation pending a letter from the pertinent heritage authority categorically stating that the application fulfils the requirements of the relevant heritage resources authority as described in Chapter II, Section 38(8) of the National Heritage Resources Act, Act 25 of 1999. Comments from SAHRA and/or the provincial department of heritage must be provided in the EIAr.

You are requested to submit two (2) electronic copies (CD/DVD) and two (2) hard copies of the EIAr to the Department as per Regulation 23(1) of the EIA Regulations, 2014.

Please also find attached information that must be used in the preparation of the EIAr. This will enable the Department to speedily review the EIAr and make a decision on the application.

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, which stipulates that no activity may commence prior to an Environmental Authorisation being granted by the Department.

Yours faithfully



**Mr Sabelo Malaza**  
**Chief Director: Integrated Environmental Authorisations**  
**Department of Environmental Affairs**  
**Letter Signed by: Mr Coenrad Agenbach**  
**Designation: Deputy Director: Strategic Infrastructure Developments**  
**Date: 22/04/2016**

cc:	Mr P Ndebele	FG Emvelo (Pty) Ltd	Email: pancho@emvelo.co.za
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**A. EIA INFORMATION REQUIRED FOR CONCENTRATED SOLAR POWER (CSP) ENERGY FACILITIES**

**1. General site information**

The following general site information is required:

- Descriptions of all affected farm portions
- 21 digit Surveyor General codes of all affected farm portions
- Copies of deeds of all affected farm portions
- Photos of areas that give a visual perspective of all parts of the site
- Photographs from sensitive visual receptors (tourism routes, tourism facilities, etc.)
- Concentrated Solar plant design specifications including:
  - Type of technology
  - Structure height
  - Surface area to be covered (including associated infrastructure such as roads)
  - Structure orientation
  - Laydown area dimensions (construction period and thereafter)
  - Generation capacity
- Generation capacity of the facility as a whole at delivery points

This information must be indicated on the first page of any Scoping or EIA document. It is also advised that it be double checked as there are too many mistakes in the applications that have been received that take too much time from authorities to correct.

**2. Sample of technical details for the proposed facility**

<b>Component</b>	<b>Description / dimensions</b>
Height of CSP tower and heliostats	
Area of CSP	
Number of inverters required	
Area occupied by inverter / transformer stations / substations	
Capacity of on-site substation	
Area occupied by both permanent and construction laydown areas	
Area occupied by buildings	
Length of internal roads	
Width of internal roads	
Proximity to grid connection	
Height of fencing	
Type of fencing	

**3. Site maps and GIS information**

Site maps and GIS information should include at least the following:

- All maps/information layers must also be provided in ESRI Shapefile format
- All affected farm portions must be indicated
- The exact site of the application must be indicated (the areas that will be occupied by the application)
- A status quo map/layer must be provided that includes the following:
  - Current use of land on the site including:
    - Buildings and other structures

- Agricultural fields
- Grazing areas
- Natural vegetation areas (natural veld not cultivated for the preceding 10 years) with an indication of the vegetation quality as well as fine scale mapping in respect of Critical Biodiversity Areas and Ecological Support Areas
- Critically endangered and endangered vegetation areas that occur on the site
- Bare areas which may be susceptible to soil erosion
- Cultural historical sites and elements
- Rivers, streams and water courses
- Ridgelines and 20m continuous contours with height references in the GIS database
- Fountains, boreholes, dams (in-stream as well as off-stream) and reservoirs
- High potential agricultural areas as defined by the Department of Agriculture, Forestry and Fisheries
- Buffer zones (also where it is dictated by elements outside the site):
  - 500m from any irrigated agricultural land
  - 1km from residential areas
- Indicate isolated residential, tourism facilities on or within 1km of the site
- A slope analysis map/layer that include the following slope ranges:
  - Less than 8% slope (preferred areas for facility and infrastructure)
  - between 8% and 12% slope (potentially sensitive to facility and infrastructure)
  - between 12% and 14% slope (highly sensitive to facility and infrastructure)
  - steeper than 18 % slope (unsuitable for facility and infrastructure)
- A site development proposal map(s)/layer(s) that indicate:
  - Foundation footprint
  - Permanent laydown area footprint
  - Construction period laydown footprint
  - Internal roads indicating width (construction period width and operation period width) and with numbered sections between the other site elements which they serve (to make commenting on sections possible)
  - River, stream and water crossing of roads and cables indicating the type of bridging structures that will be used
  - Substation(s) and/or transformer(s) sites including their entire footprint.
  - Cable routes and trench dimensions (where they are not along internal roads)
  - Connection routes to the distribution/transmission network (the connection must form part of the EIA even if the construction and maintenance thereof will be done by another entity such as ESKOM)
  - Cut and fill areas of the facility, along roads and at substation/transformer sites indicating the expected volume of each cut and fill
  - Borrow pits
  - Spoil heaps (temporary for topsoil and subsoil and permanently for excess material)
  - Buildings including accommodation

With the above information authorities will be able to assess the strategic and site impacts of the application.

#### 4. Regional map and GIS information

The regional map and GIS information should include at least the following:

- All maps/information layers must also be provided in ESRI Shapefile format
- The map/layer must cover an area of 20km around the site
- Indicate the following:

- roads including their types (tarred or gravel) and category (national, provincial, local or private)
- Railway lines and stations
- Industrial areas
- Harbours and airports
- Electricity transmission and distribution lines and substations
- Pipelines
- Waters sources to be utilised during the construction and operational phases
- A visibility assessment of the areas from where the facility will be visible
- Critical Biodiversity Areas and Ecological Support Areas
- Critically Endangered and Endangered vegetation areas
- Agricultural fields
- Irrigated areas
- An indication of new road or changes and upgrades that must be done to existing roads in order to get equipment onto the site including cut and fill areas and crossings of rivers and streams

## 5. Important stakeholders

Amongst other important stakeholders, comments from the National Department of Agriculture, Forestry and Fisheries must be obtained and submitted to the Department. Any application, documentation, notification etc. should be forwarded to the following officials:

Ms Mashudu Marubini  
 Delegate of the Minister (Act 70 of 1970)  
 E-mail: MashuduMa@daff.gov.za  
 Tel 012- 319 7619

Ms Thoko Buthelezi  
 AgriLand Liaison office  
 E-mail: ThokoB@daff.gov.za  
 Tel 012- 319 7634

All hardcopy applications / documentation should be forwarded to the following address:

Physical address:  
 Delpen Building  
 Cnr Annie Botha and Union Street  
 Office 270  
 Attention: Delegate of the Minister Act 70 of 1970

Postal Address:  
 Department of Agriculture, Forestry and Fisheries  
 Private Bag X120  
 Pretoria  
 0001  
 Attention: Delegate of the Minister Act 70 of 1970

In addition, comments must be requested from Eskom regarding grid connectivity and capacity. Request for comment must be submitted to:

Mr John Geeringh  
Eskom Transmission  
Megawatt Park D1Y38  
PO Box 1091  
**JOHANNESBURG**  
2000

Tel: 011 516 7233  
Fax: 086 661 4064  
John.geeringh@eskom.co.za

## **B. AGRICULTURE STUDY REQUIREMENTS**

- Detailed soil assessment of the site in question, incorporating a radius of 50 m surrounding the site, on a scale of 1:10 000 or finer. The soil assessment should include the following:
  - Identification of the soil forms present on site
  - The size of the area where a particular soil form is found
  - GPS readings of soil survey points
  - The depth of the soil at each survey point
  - Soil colour
  - Limiting factors
  - Clay content
  - Slope of the site
  - A detailed map indicating the locality of the soil forms within the specified area,
  - Size of the site
- Exact locality of the site
- Current activities on the site, developments, buildings
- Surrounding developments / land uses and activities in a radius of 500 m of the site
- Access routes and the condition thereof
- Current status of the land (including erosion, vegetation and a degradation assessment)
- Possible land use options for the site
- Water availability, source and quality (if available)
- Detailed descriptions of why agriculture should or should not be the land use of choice
- Impact of the change of land use on the surrounding area
- A shape file containing the soil forms and relevant attribute data as depicted on the map.

## **C. ASTRONOMY GEOGRAPHIC ADVANTAGE ACT, 2007 (ACT NO. 21 OF 2007)**

The purpose of the Act is to preserve the geographic advantage areas that attract investment in astronomy. The entire Northern Cape Province excluding the Sol Plaatjie Municipality had been declared an astronomy advantage area. The Northern Cape optical and radio telescope sites were declared core astronomy advantage areas. The Act allowed for the declaration of the Southern Africa Large Telescope (SALT), MeerKAT and Square Kilometre Array (SKA) as astronomy and related scientific endeavours that had to be protected.

You are requested to indicate the applicability of the Astronomy Geographic Advantage Act, Act No. 21 of 2007 on the application in the BAR/EIR. You must obtain comments from the Southern African Large Telescope (SALT) if the proposed development is situated within a declared astronomy advantage area.