**ISSUES TRAIL** 

DEA REF: 14/12/16/3/3/3/205

April 2016

## **TABLE OF CONTENTS**

1.	ENGINEERING AND DESIGN	1
2.	CONSTRUCTION	1
3.	TRAFFIC & ROADS	2
4.	ENVIRONMENTAL	5
5.	ECONOMIC	15
6.	SOCIAL	16
7.	SAFETY	20
8.	GENERAL	21

# 1. ENGINEERING AND DESIGN

ISSUE/COMMENT	RAISED BY	RESPONSE
Johan Maritz queried if the generators or any machinery on the CSP plant might generate a low frequency noise that would affect his wild animals on his farm.	Johan Maritz at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	In a review of the results calculated from the propagation model (refer to the Noise Assessment conducted for the EIA study), it indicates that the cumulative effects of the operations are minimal on the surrounding environment and the majority of noise will be localized to the source. It is not foreseen that any machinery on site would have any effect on the surrounding area.
Poppie Howell wanted to know how frequently the solar panels and mirrors would be cleaned of dust. She also indicated that it must be kept in mind that the water from the area leaves a scaly residue.	Poppie Howell at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	The mirrors require periodic cleaning, varying typically between fortnightly to weekly, depending on the local conditions which affect the rate of dust deposition on the mirrors. The water used for mirror cleaning will be demineralised, it is crucial that the cleaning water be pure, to avoid abrasion of the front surfaces of the mirrors while using the high pressure cleaning equipment.
The area is known for heavy hail storms that have killed livestock. How will the panels and mirrors accommodate such a challenge?	Poppie Howell at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	Solar PV panels, parabolic trough collectors, and central receiver heliostats are designed to withstand the impacts of hailstones. The Proponent will ensure that all technology selected for the project meets the necessary requirements for local hail exposure.

## 2. CONSTRUCTION

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Peter Kotze stated that all farmers and landowners surrounding the solar plants should have first choice on all off-cuts (wood, steel etc.) generated on the sites.		<ul> <li>The EMPr has accommodated the condition where:</li> <li>Agreement must be reached between the Developer, Surrounding Farmers &amp; I&amp;APs and the Local Municipality on the distribution of excess materials that will not be used on site.</li> </ul>
Ordain Riba queried if each project would be	Ordain Riba at the Scoping Phase	Mr Rwigema indicated that the option would be considered during the design

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planned/designed separately. He highlighted that it could be beneficial if the two sites could be planned in such a sense as to accommodate each other. He used a central storage area that can be used by all two sites as an example.	the 21 <sup>th</sup> of July 2015	stage of the project. He also indicated that it must be noted that the possibility exists of each site being constructed during separate timeframes. The Proponent confirms that the various plants will be designed to maximise the use of shared infrastructure within the bounds.

## 3. TRAFFIC & ROADS

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All the farmers indicated, during the Public Participation meeting, that the foreigners and the truck drivers are endangering the lives of the locals and farmers that are using the road. They do not adhere to the speed limits and drive recklessly. This will surely be a problem during	Public Participation Meeting	The Proponent is of the view that the current gravel surface of the portion of the Gariep Road that extends from the N8 to the Transnet service road is not suitable for the construction and operation requirement of the project. The Proponent understands that Bokpoort CSP may consider implementing measures in the short-term that may improve the quality of the road.
the Sand Draai project.		In addition to Bokpoort CSP, multiple other project developers are actively pursuing solar power and potentially other large-scale infrastructure developments in the vicinity of the project and for their purposes will be traversing the road as well. A coordinated approach will therefore be required to ensure that any short-term and/or permanent solutions that will be implemented on the road will be suitable for the planned infrastructure as well as other stakeholders including Eskom, Transnet, the Department of Roads and Public Works, local farmers, and citizens that regularly travel this route. The Proponent will engage with all stakeholders towards identifying feasible solutions that are suitable to all stakeholders; in these cases the entire burden cannot reasonably be undertaken by the Proponent on it's own.
Objection is being raised, by Mr Andre Kruger, against the construction of the Sand Draai projects due to:	Andre Kruger via e-mail sent on the 20 <sup>th</sup> of July 2015	The Proponent is of the view that the current gravel surface of the portion of the Gariep Road that extends from the N8 to the Transnet service road is not suitable

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The state's access roads are in appalling conditions due to the high volume of traffic on the roads by developers and contractors. This matter must be addressed before any site development/ construction is undertaken.		for the construction and operation requirement of the project. The Proponent understands that Bokpoort CSP may consider implementing measures in the short- term that may improve the quality of the road. In addition to Bokpoort CSP, multiple other project developers are actively pursuing solar power and potentially other large-scale infrastructure developments in the vicinity of the project and for their purposes will be traversing the road as well. A coordinated approach will therefore be required to ensure that any short-term and/or permanent solutions that will be implemented on the road will be suitable for the planned infrastructure as well as other stakeholders including Eskom, Transnet, the Department of Roads and Public Works, local farmers, and citizens that regularly travel this route. The Proponent will engage with all stakeholders towards identifying feasible solutions that are suitable to all stakeholders; in these cases the entire burden cannot reasonably be undertaken by the Proponent on it's own.
The Groblershoop Farmers Association indicated: Gariep and extension roads from Groblershoop to Griekwastad joining, as well as Groblershoop/Upington via Wegdraai as experience with Bokpoort Project the mentioned routes gets used intensively during construction phases, which are going to double with Bokpoort 2/Sand Draai 1. Both are secondary roads. The result of all the traffic and speed of the vehicles is that the roads service has been worn out creating terrible dust. Northern Cape Roads Department does not have the capability to regularly service the roads and the current Construction Contractor, despite written undertakings cannot maintain the roads. The bad service of the roads are also causing damage to all vehicles on the roads and shortening the serviceable	Groblershoop Farmers Association (Andre Kruger) via e-mailed letter sent on the 8 <sup>th</sup> of December 2015. As per e-mail request from Peter Kotze on 3 December 2015	The Proponent is of the view that the current gravel surface of the portion of the Gariep Road that extends from the N8 to the Transnet service road is not suitable for the construction and operation requirement of the project. The Proponent understands that Bokpoort CSP may consider implementing measures in the short-term that may improve the quality of the road. In addition to Bokpoort CSP, multiple other project developers are actively pursuing solar power and potentially other large-scale infrastructure developments in the vicinity of the project and for their purposes will be traversing the road as well. A coordinated approach will therefore be required to ensure that any short-term and/or permanent solutions that will be implemented on the road will be suitable for the planned infrastructure as well as other stakeholders including Eskom, Transnet, the Department of Roads and Public Works, local farmers, and citizens that regularly travel this route. The Proponent will engage with all stakeholders towards identifying feasible solutions that are suitable to all stakeholders; in these cases the entire burden cannot reasonably be undertaken by the Proponent on it's own.

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years of the vehicle from 5 to 1 year since maintenance and repair costs are no longer economically viable. The road service needs to be tarred, under proper supervision of a knowledgeable Engineer in Road Construction, so that the roads would be able to handle the heavy loads without crumbling and creating potholes.		
The Groblershoop Farmers Association indicated:	Groblershoop Farmers Association (Andre Kruger) via	A Traffic Impact Assessment has been undertaken during the EIA phase for the Sand Draai projects and all observed data is obtainable from the report (See
A Traffic Assessment has been done (for Bokpoort), but the results of this has been kept from I&APs preventing us from obtaining the existing facts.	e-mailed letter sent on the 8 <sup>th</sup> of December 2015. As per e-mail request from Peter Kotze on 3 December 2015	Appendix D10). The Bokpoort projects are not part of the Scope of this EIA study.
Mr Kruger brought to the attention of the team that the roads remain a problem, especially deaths that are	Andre Kruger at the EIA Public Meeting held on the 29 <sup>th</sup> of	The EMPr states as a condition that access to the Sand Draai projects is only to be allowed via the N10 – N8 – Gariep Road (south of the Transnet Bridge).
occurring. He mentioned the latest incident where a Bokpoort employee was involved that lead to the death of a farmer. He also indicated that there was a death of a child on the Opwag Road. He indicated that the access to site by taxis is currently being undertaken from all over. The N8 and N14 Gariep Road is not the only road being used and that is a problem.	March 2016 at Groblershoop	The Proponent indicated that this will be placed as a condition in all contractual documentation that companies accessing the site must plan for and adhere to. The Proponent will consider the most effective measures to be implemented that may improve safe driving behaviour including: a strategically placed boom gate; the option of fines to be allocated; and even termination of contracts if contractual conditions are not followed. The Proponent is willing to create a platform, where issues and solutions such as these can be discussed between the Proponent, the Contractors, the Municipality, Provincial and any I&APs can be discussed and solutions are then found.
		It would be inconsiderate for the Proponent to be overly specific about its commitments as they pertain to the Gariep Road at this stage, and in doing so limit its responsibilities towards issues that emerge between now and construction. It will also be necessary for the Proponent to liaise and collaborate with other developers that have similar interests and plans in the neighbouring area. The Proponent therefore commits to an inclusive and on-going process that will result in feasible solutions that are supported by all stakeholder groups prior to the commencement of

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		construction. This process will include representatives from all the developers of the different projects in the area.
<b>Road Conditions</b> The Gariep and Opwag access roads and all other connections from N10, to be used by the contractors for the transportation of labourers, must have a permanent surface before any further construction is undertaken. Alternative surfacing options that include tarring, paving and dustaside should be investigated in order to find a permanent solution that will be used for the next 25 years. This will prevent further damage to agricultural production (food), human life, health of people and animals and depreciation of agricultural land due to dust cover etc. See Article 9; 11; 21; 22; 24; 25; 26; 27; 28; 33; 38; of the Constitution of Fundamental Rights that will be imposed on individuals and on a community basis if basic human rights are further ignored and / or threatened.)	Letter received via e-mailed letter sent on the 6 <sup>th</sup> of April 2016 by Mr Andre Kruger	It would be inconsiderate for the Proponent to be overly specific about its commitments as they pertain to the Gariep Road at this stage, and in doing so limit its responsibilities towards issues that emerge between now and construction. It will also be necessary for the Proponent to liaise and collaborate with other developers that have similar interests and plans in the neighbouring area. The Proponent therefore commits to an inclusive and on-going process that will result in feasible solutions that are supported by all stakeholder groups prior to the commencement of construction. This process will include representatives from all the developers of the different projects in the area.

## 4. ENVIRONMENTAL

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gravel road between the N8 & N14 is a source of major concern. They also indicated that the amount of dust	Peter Kotze, Wilco Fourie & Johan Maritz at the Public Scoping Phase Participation	The matter of dust emissions will be thoroughly investigated by the Air Quality specialist during the EIA phase. The dust impacts will also be investigated by Agricultural and Economic specialists. The Proponent is of the view that the current gravel surface of the portion of the Gariep Road that extends from the N8 to the Transnet service road is not suitable for the construction and operation requirement of the project. The Proponent understands that Bokpoort CSP may consider implementing measures in the short-term that may improve the quality of the road.

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	20 <sup>th</sup> of July 2015 from Andre Kruger	In addition to Bokpoort CSP, multiple other project developers are actively pursuing solar power and potentially other large-scale infrastructure developments in the vicinity of the project and for their purposes will be traversing the road as well. A coordinated approach will therefore be required to ensure that any short-term and/or permanent solutions that will be implemented on the road will be suitable for the planned infrastructure as well as other stakeholders including Eskom, Transnet, the Department of Roads and Public Works, local farmers, and citizens that regularly travel this route. The Proponent will engage with all stakeholders towards identifying feasible solutions that are suitable to all stakeholder groups. Certain improvements may require the commitment of all stakeholders; in these cases the entire burden cannot reasonably be undertaken by the Applicant on it's own.
Louis Kotze indicated that no Climatological study was conducted for the Scoping phase and requested that a detailed assessment be conducted during the EIA phase. He further indicated that it was brought to the farmers' attention that there is a temperature difference of at least 10°C between being on the Bokpoort site and the surrounding areas or farms. He therefore wanted to know what affect the new CSP plant would have on the climate or the micro climate of the surrounding area. The possibility of all the solar plants generating a "heat island" must also be investigated.	Louis Kotze at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	The Air Quality Assessment investigated the impact of the proposed sites on the surrounding areas. The development of a heat island or any kind of climatological impacts has been noted to occur in areas where the natural environment "grasslands specifically" has been replaced by infrastructure for solar projects. This is particularly noted in projects of 50MW and greater. It is expected that during the day at a height of 2.5m above the array, an increase in temperature is noted to reach up to 1.9°C warmer than the surrounding ambient air, with the thermal increase having completely dissipated 11.5m above the array. It is likely that by a distance of 300m from the edge of the array, the temperature is approximately 0.3°C above ambient temperature. Therefore the temperature would have return to ambient temperature if one moves more than 300m from each site. It has also been noted that overnight the array will completely cool and lose all thermal head.
Johan Maritz queried if the generators or any machinery on the CSP plant might generate a low frequency noise that would affect his wild animals on his farm. He requested that special attention be given to this during the Noise Specialist study conducted in the EIA phase.	Johan Maritz at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	In review of the results calculated from the propagation model, it indicates that the cumulative effects of the operations are minimal on the surrounding environment and the majority of noise will be localized to the source. It is not foreseen that any machinery on site would have any effect on the surrounding area.

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Johan Maritz queried what the visual impact would be on his wildlife and hunting business? Mr Maritz indicated that the generation of his yearly income is dependent on giving a real live "African" experience to hunters from overseas. These tourists would not want to come to his farm if they are able to see structures that remind them of the city.	Johan Maritz at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	During the Visual Assessment it was found that the sheer height of the central receiver tower (250m) would result in the upper parts of the tower, and importantly the brilliantly illuminated receiver at the top of the tower being visible from a very wide radius around the development site. Analysis of the viewsheds indicate that under both alternative scenarios the top of the tower (receiver) would be visible from the vast majority of receptor locations in the study area, including from most of the receptor locations within the lower-lying elevation of the Orange River valley. The height of the upper part of the tower entails that the intervening (higher-lying) topography between these receptors in the valley bottom of the river (even for many of the receptors on the eastern side of the river) does not shield the upper part of the tower from view.
Poppie Howell queried if the rare species of swallow that are found in the Pruinsberg area will be affected by the proposed CSP tower and mirrors?	Poppie Howell at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	The Avifaunal specialist found that sparrow species will most likely be affected by the CSP tower and heliostats. These impacts included, solar flux, collisions etc. It must be noted that no rare species of sparrows were recorded during the two seasons of avifaunal minoring. Only Non-Priority species of sparrow were observed.
Poppie Howell queried how trees and plants, that need to be moved or re-located, will be handled as most species in the area are very fragile.	Poppie Howell at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	DAFF permits will specify the procedures to be followed when re-location of trees are to be undertaken. The Flora specialist will also be requested to identify any best practice methods to ensure success.
Samantha de la Fontaine indicated that during the EIA that was conducted for the Abengoa CSP plant it was discovered that Flamingos are greatly affected due to a shrimp species that was found in pools and ponds during the rainy season. The Flamingos are dependent on these shrimps.	Samantha De la Fontaine at the Scoping Phase Public Participation Meeting held on the 21 <sup>th</sup> of July 2015	During the Avifaunal Assessment and Monitoring (Two Seasons) no indication of any flamingos were found. According to the SABAP2 data records, the closest area where flamingos can be found is in Upington. It is not foreseen that the Sand Draai projects will have any effect on flamingo species.
Objection is being raised, by Mr Andre Kruger, against the construction of the Sand Draai projects due to: The availability of water from the river is in question and therefore it cannot be allowed that water be obtained for	Andre Kruger via e-mail sent on the 20 <sup>th</sup> of July 2015	The project will follow a legislated Water Use Licence application process, whereby the reserve determination will be completed by the Department of Water and Sanitation to determine the availability of water for the project. The recommended agreements and EIA reports will be investigated during the Water Use License

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construction or operational purposes. Mr Kruger also recommended that the SADC and ASSOCOM agreements be looked at including the required EIA and not just the BA reports.		Application and will be used to make an informed decision.
<ul> <li>Jacoline Mans commented in a letter from the Department of Agriculture, Forestry and Fisheries that:</li> <li>1. The proposed developments are immediately adjacent to the existing Bokpoort Solar Energy Facility, which was also developed by Solafrica and significant impacts on <i>Boscia albitrunca</i> and other protected plants and trees. The developer should note that this Department will assess cumulative impacts on protected trees and an additional offset may be required to compensate for any further impacts on slow growing protected trees.</li> <li>2. Kindly assess the potential impact on protected trees and provide accurate estimations on the number of trees to be destroyed per project and the size classes of affected trees. Areas with higher densities protected trees should be regarded as sensitive and avoided as far as possible. The sensitive dune areas (if present) should be avoided as far as possible and it is recommended that a mammal impact assessment be conducted, focusing on nocturnal ground-dwelling mammals that might be destroyed on site. Impacts on the endangered Lower Gariep Alluvial Vegetation type should be minimized by avoiding the riparian zone, which may contain the protected <i>Euclea pseudebenus</i> and other trees.</li> </ul>	sent on the 7 <sup>h</sup> of August 2015	The Ecological Assessment identified <i>Boscia albitrunca</i> species to be present and prominent in the area. The Department of Agriculture, Forestry and Fisheries (DAFF) will have to be approached to obtain the required permits for the removal of any protected tree species. It was recommended that these trees are not unnecessarily removed from the ecosystem. It has been recommended in the EMPr that a pre-construction, by a specialist, site walkthrough be undertaken where a count of all protected trees be undertaken to get an accurate survey on the number of trees to be removed and or relocated. This will be followed by DAFF permit application process During the Ecological Assessment it was found that during the construction phase of the proposed CSP plant, habitat destruction and alteration inevitably takes place. This happens with the construction of access roads, and the clearing of the vegetation on the site for the CSP plant. These activities will have an impact on the associated vegetation and fauna; especially ground living and fossorial species occurring within and in close proximity of the CSP site, both through modification of habitat and disturbance caused by human activity. During field assessments, three specimens of the Striped Mouse ( <i>Rhabdomys pumilio</i> ) were captured in the five Sherman Traps situated on a dune slope. During the small mammal trapping (using baited small mammal live traps), the Red Data "Date Deficient" (DD), Bushveld <i>Gerbil Tatera leucogaster</i> (DD) was captured in the region of the study area and burrows in the sandy soil areas. A single Striped Mouse ( <i>Rhabdomys pumilio</i> ) was captured in the five Sherman Traps situated on a dune slope. Trapping success of small mammals was low throughout the large site; perhaps due to the low vegetative cover which is typical of the site where although

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		vegetation grows on rich soils, plant growth is limited by climate.
		Regarding the protected Wild Ebony or Ebony Quarri Tree <i>Euclea pseudebenus none</i> were observed within the effected sections of the riparian zone of the Gariep River. Specimens were observed downstream from the Sand Draai site towards Grobblershoop.
		It was however recommended that once the final linear infrastructure for the CSP sites have been decided on and pegged that a walk down by a qualified plant ecologist is done to determine how many of these protected species must be removed.
The Groblershoop Farmers Association indicated that: Dust is a huge factor that leads to massive crop loss next to the mentioned roads. This in return threatens the	Groblershoop Farmers Association (Andre Kruger) via e-mailed letter sent on the 8 <sup>th</sup> of	Dust monitoring undertaken during the EIA phase indicated that over an average 24- hour period the national maximum dust exceedances for the southern part of the Gariep Road is not exceeded, and marginally so for the northern road.
further existence of products and food production. The product grade are low and of no economical value due to the dust layer on the grapes. The dust acts like sandpaper which removes the wax layer on the grapes,	December 2015. As per e-mail request from Peter Kotze on 3 December 2015	In addition to this the agricultural expert pointed out that possibly the largest portion of the Gariep Road dust falls within a ten metre boundary on each side of the Road. Further inspection deeper onto the farm land shows little evidence of dust deposits. The Royal HaskoningDHV air quality report corroborates this physical evidence.
that would normally protect the grapes. Without the wax layer on the grapes, the grapes are damaged before harvesting time; a condition called Botrytis occurs that causes the grapes to go rotten. This has an effect on		It was concluded that the dust fall-out is very unlikely to materially impact the agricultural land-yields in the study area. It is possible that from time to time, given the right wind and traffic conditions, that more dust will generate than normal, but this is unlikely to materially affect the average agricultural yields in the area
export grapes, raisins and wine. As experienced with the previous harvest, crops were a lot smaller and potential earnings much lower and this affected all other produce such as corn, mielies, luscern, cotton etc.		The air quality assessment found that fugitive dust can adversely affect human health, however it is important to note that impacts will be of a temporary nature, only occurring during the construction period. It was however found that the dust particulates and fall-out are well below the national maximum exceedances. A
This has a total effect; smaller crops, leading to lower earnings in turn job losses, leading to increase in crime, as we are currently experiencing. The socio economic impact from this costs the tax-payers huge amounts due to investigations, apprehending, sentencing, bail		recommendation was made that only a specified access route be used by all contractors and that special attention be given to this road. It was recommended that the identified road be surfaced to prevent any dust generation.

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supervision and rehabilitation. Dust can spread as far as approximately 10km, depending on wind direction and speed.		
Livestock and animals eat the dust contaminated vegetation. The dust sediments accumulate in the animals digestive systems and cause delayed growth and low market value of animals eating the surrounding natural vegetation and feed that has been subjected to these huge amounts of dust. Animals need to be fed for longer periods, accumulating higher costs, while at the same time quality and income of the produce are negatively affected, since the fine dust, lets the animal feel fuller faster, although they have not received the adequate nutrition. It has also been noted that only single offspring have come from the herds in the surrounding dusty areas, which adds to more loss of produce and income.		
The humans that work and stay next to the roads are exposed to inhaling the dust, which negatively affects their lungs and health. The lung diseases caused by the dust, impacts people ability which in return again puts strain on our tax-payers, through medical costs incurred and inability to generate an income to support the families or healthcare. The dust also has dermatological consequences that cause wounds to take longer to heel, get better and get septic. Proper impact studies on this impact as a whole needs to be conducted and discussed in detail.		
The Groblershoop Farmers Association indicated that: The surrounding areas are being heated up unnaturally	Association (Andre Kruger) via	The Air Quality Assessment investigated the impact of the proposed sites on the surrounding areas. The development of a heat island or any kind of climatological impacts has been noted to occur in areas where the natural environment

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and the impact on humans and animals is still unknown and needs in depth investigation.	request from Peter Kotze on 3	"grasslands specifically" has been replaced by infrastructure for solar projects. This is particularly noted in projects of 50MW and greater.
It is already a documented fact that the mating seasons of animals are shortened by extreme heat conditions artificially incurred. Results of this impact can only now be felt since Bokpoort 1 has gone into production and the increase of heat conditions has been felt.	December 2015	It is expected that during the day at a height of 2.5m above the array, an increase in temperature is noted to reach up to 1.9 °C warmer than the surrounding ambient air, with the thermal increase having completely dissipated 11.5m above the array. It is likely that by a distance of 300m from the edge of the array, the temperature is approximately 0.3 °C above ambient temperature. Therefore the temperature would
Monitors to determine the heat measurements in the areas over long periods and the impact thereof is critical and should be incorporated into the reports as well as the production/ work effectiveness of workers that should be included and the impact on workers in terms of heat exhaustion, which again leads to workforce loss and subsequent expenses and income loss.		have return to ambient temperature if one moves more than 300m from each site. It has also been noted that overnight the array will completely cool and lose all thermal head.
The Global Heating International Conference currently running to get a workable solution and international agreement by all State Leaders also creates concerns since the agreed regulations, to which the RSA should also abide by, is still unknown. The State President and Minister of Environment were also present at the conference.		
Mr Kruger enquired if the heat island findings were based on theoretical findings or tests that were done practically.	Andre Kruger at the EIA Public Meeting held on the 29 <sup>th</sup> of March 2016 at Groblershoop	The Air Quality Specialist findings were based on published papers. It has also been recommended in the EMPr that weekly monitoring and testing be undertaken once the site is operational. A specialist will also be consulted to identify any possible impacts.
Mr Kruger mentioned that nowhere in the reports is anything mentioned on the ordinance to protect vultures and raptor species in the area.	Andre Kruger at the EIA Public Meeting held on the 29 <sup>th</sup> of March 2016 at Groblershoop	The Avifaunal specialist could not find an Ordinance pertaining to the Protection of Vultures and Raptors. Prof Johan Knobel from the UNISA Law Faculty was consulted, who is a raptor expert and has written extensive legislation pertaining to the protection of raptors in South Africa. He is not aware of such an ordinance. It may be that the I&AP was referring to the Northern Cape Nature Conservation Act

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		(Act No 9 of 2009) which replaces all the old provincial legislation. According to Schedule 1 of the Act, raptors and vultures are classified as "specially protected species".
		It is not directly applicable to the impacts that could result from developments, but rather aimed at the hunting and utilization of wild animals.
		Mitigation measures have also been added to the EMPr that address any impacts the proposed project would have on the bird species encountered on site.
Mr Kruger enquired how much water would be pumped from the river for this project and then how much water would be lost due to evaporation when not being used. He indicated that the area was a drought stricken area that cannot afford unnecessary water loss.	Andre Kruger at the Public Meeting held on the 29 <sup>th</sup> of March 2016 at Groblershoop	The Sand Draai projects would be based on dry cooling system. Therefore these projects would each only use approximately 10% per megawatt of what is currently being used at the Bokpoort CSP plant which is a wet cooling system. It was indicated that it would currently not be able to provide Mr Kruger on the exact quantities of water that would be recycled, lost and used on site. However such information will be supplied to him once it has been obtained.
Mr Kruger mentioned that he noticed flamingos at the Bokpoort site as well as Egyptian Geese.	Andre Kruger at the Public Meeting held on the 29 <sup>th</sup> of March 2016 at Groblershoop	The EMPr has placed monitoring of birds, during the operational phase, as a condition. If any flamingos or Egyptian geese are found near the ponds it is suggested that the appointed specialist provide recommendations on what should be done.
Mr Kruger suggested that all sewage water that has gone through the treatment process should be re-introduced into the water system somehow. He suggested that a French drain system be considered for during the Operational phase of the project.	Andre Kruger at the Public Meeting held on the 29 <sup>th</sup> of March 2016 at Groblershoop	The proposal to re-introduce treated sewage water into the environment has merits, although this could only be undertaken if the treated wastewater were treated to acceptable DWS standards. The operation of a French drain system at the plant could be problematic however, due to a number of factors. The nature of the substrate (if calcrete or hard rock) could preclude the infiltration of this treated wastewater into the ground, and the very high levels of evaporation in the area could then cause loss of most of this water to evaporation. If the goal was to return water to the environment, the creation of an artificial wetland (reedbed) would be more preferable as this would create a new habitat for fauna in the area (increasing habitat diversity), as well as providing a water point for fauna and assisting in the further treatment of the water. Taking the overall context of limited water availability in an arid region context into consideration, it is however recommended that this

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		'grey' water rather be recycled than fed into the environment. If this treated wastewater were able to be recycled and used for washing of panels etc. this would minimise the amount of water needed to be abstracted from the Orange River for such purposes, and would constitute a water saving measure.
Ms Mans wanted to know what the vegetation types were found on site and what counts of trees were found. She indicated that it must be investigated, during the site visit for the DAFF permit application.	Jacoline Mans at the Stakeholder Meeting held on the 30 <sup>th</sup> of March 2016 at Upington	A pre-construction site walkthrough will be undertaken for DAFF permitting purposes as is stated in the EMPr. During this walkthrough the appointed specialist will do a count of all red listed tree species keeping Ebony trees in mind.
It was also suggested that the Ebony tree be searched for when a count is being undertaken of the number of trees that will be affected by the proposed projects. This should be included in the DAFF permit application.		
Ms Mans wanted to know if any dune areas would be affected. She indicated that dunes are very sensitive in these areas.	Jacoline Mans at the Stakeholder Meeting held on the 30 <sup>th</sup> of March 2016 at Upington	No impacts have been identified or foreseen in areas with dunes during the impact studies.
Ms Mans wanted to know if there was currently any mitigation to prevent birds from flying into the path of the concentrated rays and being affected by solar flux. She indicated that she had read an article where the Spanish were in the process of creating a kind of alarm system that will scare birds away.	Jacoline Mans at the Stakeholder Meeting held on the 30 <sup>th</sup> of March 2016 at Upington	The Proponent is currently investigating any and all possible mitigation measures for the mitigation of birds being affected
Ms Mans also wanted to know what the impact of the projects would be on the insect populations. She indicated that entomology study may be able to provide some insight during the operational phase of the projects to investigate if there is any impact.	Jacoline Mans at the Stakeholder Meeting held on the 30 <sup>th</sup> of March 2016 at Upington	The Ecological specialist (upon confirmation from a Professor at the University of Pretoria) indicated that there is currently not any published information regarding this matter. He did however find several reports indicating that the mirrors attract insects (mainly moths) which attract insectivorous bird species which attract predatory birds. It was confirmed that the recommendation below would be the only mitigatory measure at this stage.

ISSUE/COMMENT	RAISED BY	RESPONSE
		It has been recommended in the EMPr that if any impacts on insect population is observed during the Operational phase, an Entomology Specialist can be consulted to provide some insight and possible recommendations.
Mitigation measures must be ensured at power lines for the protection of birds of prey in terms of the Northern Cape Provincial ordinance/regulations. This will ensure the protection of birds of prey, especially Red Listed species.	Letter received via e-mailed letter sent on the 6 <sup>th</sup> of April 2016 by Mr Andre Kruger.	Mitigation measures, for the protection of bird species, have been included in the EMPr as specific conditions to be implemented. Mitigation measures include diverters and bird flappers.
Mr Kruger indicated that he was about 5 km from the point where grapevines were being sprayed (pesticides) downwind and I could smell the pesticides. The COIDA and Occupational Health laws determine that the person spraying must be dressed in protective clothing while spraying is undertaken. What about public and labourers that come in contact with the spray? The micro droplets merge with the dust, which is caused by passing vehicles, and is then distributed. The effects it has on lungs and dermatological contact should be investigated for inclusion in the final report as an integral part of the objections as already provided.	2016 by Mr Andre Kruger. (on	Dust management and mitigation has been addressed as part of the study and EMPr, along with potential health impacts associated with dust generated by the proposed project. Pesticides described in the comment are introduced into the environment by the grape farmers. The chemicals used, concentrations applied and timing regarding the application of these chemicals is not available, as this is beyond the control of the proposed project. Studies as indicated in the comment should be referred to and undertaken by those introducing the chemicals into the environment. This problem must be discussed at the Farmers' Association meetings and fall outside the ambit of this EIA study.
Page 86 refers to the endangered Lower Gariep Alluvial vegetation (AZa3) type dominated by Ziziphus mucronata, Vachellia karroo, Salix mucronata, Euclea pseudebenus and Phragmites australis. No reference was made to the protected status of E. pseudebenus. If encountered and affected, it must be included in the NFA License application. Provincially protected tree species commonly associated with the endangered Lower Gariep Alluvial vegetation	Letter received <i>via</i> e-mailed letter sent on the 19 <sup>th</sup> of April 2016 by Ms Jacoline Mans. (Department of Agriculture, Forestry and Fisheries)	The recommendations have been added to the EMPr as a condition.

ISSUE/COMMENT	RAISED BY	RESPONSE
type include Combretum erythrophyllum and Olea europaea subsp. africana to name but a few. If affected, it must be included in the Flora Permit application		
	letter sent on the 19 <sup>th</sup> of April 2016 by Ms Jacoline Mans. (Department of Agriculture,	Impacts, especially at the Lower Gariep Alluvial vegetation near the river, are to be kept to a minimum at all cost. This recommendation has been incorporated into the EMPr as a condition.

## 5. ECONOMIC

ISSUE/COMMENT	RAISED BY	RESPONSE
During the Public Meeting it was stated by the farmers and landowners that, because of Bokpoort CSP and future solar projects, the value of their farms are being affected. No study was ever conducted to identify what impact these projects would have on the surrounding farms and their values.	Fourie & Johan Maritz at theScopingPhasePublicParticipationMeeting held on	<ul> <li>During the Economic Study it was found that:</li> <li>In the short term, and based on an unsurfaced Gariep Road, our assessment is that the land values of neighbouring farms, and some of the farms alongside the Gariep Road will be negatively impacted because any rational buyer will want a discount for perceived uncertainty.</li> <li>It was furthermore found that farm values in the study area will recover once the Gariep Road had been surfaced, or the construction phases of all the potential projects had been completed, whichever comes first.</li> </ul>
During the Public Meeting the farmers also indicated that farmers and landowners use personal vehicles to transport their goods. These vehicles are being damaged by the bad condition of the road caused by the Bokpoort project (and will surely get worse) and they have to bare the costs.	Fourie & Johan Maritz at the Scoping Phase Public	The Proponent is of the view that the current gravel surface of the portion of the Gariep Road that extends from the N8 to the Transnet service road is not suitable for the construction and operation requirement of the project. The Proponent understands that Bokpoort CSP may consider implementing measures in the short-term that may improve the quality of the road. In addition to Bokpoort CSP, multiple other project developers are actively pursuing

ISSUE/COMMENT	RAISED BY	RESPONSE
		solar power and potentially other large-scale infrastructure developments in the vicinity of the project and for their purposes will be traversing the road as well. A coordinated approach will therefore be required to ensure that any short-term and/or permanent solutions that will be implemented on the road will be suitable for the planned infrastructure as well as other stakeholders including Eskom, Transnet, the Department of Roads and Public Works, local farmers, and citizens that regularly travel this route. The Proponent will engage with all stakeholders towards identifying feasible solutions that are suitable to all stakeholders; in these cases the entire burden cannot reasonably be undertaken by the Proponent on it's own. The Proponent will progress these discussions and evaluate detailed engineering solutions. A detailed solution will be reported and incorporated into the EIA report.

# 6. SOCIAL

ISSUE/COMMENT	RAISED BY	RESPONSE
Louis Kotze mentioned that projects like this (Sand Draai and other CSPs) has a negative social impact on the surrounding area. As he discovered a contractor, one night, had picked up a bunch of girls (some minors) and provided drugs and alcohol to them.	Meeting held on the 20th of July	One of the mitigation measures that are proposed is that a Contractor's Code of Conduct be developed and implemented. This is an important tool that will control and monitor the contractor's behaviour within and external to the development site. Fraternisation with the local population would also have certain moral and ethical criteria to be followed.
Ms Scheepers requested that all affected parties be invited to meetings before and when the Sand Draai construction is being undertaken. This includes all landowners, farmers and municipal representatives.	Scoping Phase Public	Royal HaskoningDHV has included this request into the EMPr for the proposed project.
Mr P Kotze indicated that noise was a problem during the construction of Bokpoort and will most certainly be a problem during the Sand Draai project. He requested that	Phase Public Participation	<ul> <li>The Noise Impact Assessment indicated that:</li> <li>In review of the results calculated from the propagation model in the previous section it indicates that the cumulative effect of the operations are minimal on</li> </ul>

ISSUE/COMMENT	RAISED BY	RESPONSE
this be investigated and a solution found.	2015	the surrounding environment and the majority of noise will be localised to the source. This is in line with the findings of Tsoutsos et al. "The noise from the generating plant of large scale schemes is unlikely to cause any disturbance to the public."
		• The largest impact is during the construction phase of the project with the noise extending far beyond the Sand Draai boundary. The closest receptor indicates that there is no effect on the noise level experienced during the life cycle of the planned solar technology.
The !Kheis Municipality's infrastructure is currently not built to accommodate or keep up with the influx of people in the area. This will become even more of a concern when other projects are to be built. These infrastructures include:	Teresa Scheepers at the Scoping Phase Public Participation Meeting held on the 20th of July 2015	The projects will include budgets for Socio-Economic Development initiatives as well as Enterprise Development initiatives. The ultimate committee appointed to manage these budgets can work with the Municipality to identify Municipal projects that may be included as supported initiatives.
Water Supply Infrastructure;		
Sanitation Infrastructure;		
<ul> <li>Waste Management Infrastructures; and</li> </ul>		
Medical Facilities/ Clinics		
Due to this the !Kheis Municipality is experiencing difficulties in providing proper services.		
It was brought to the attention of the team that the construction of Bokpoort and any future developments will have a social impact on the surrounding area. Ms Scheepers indicated that violence, drug use, crime etc. has increased in the past year or so due to the construction of the Bokpoort site.	Teresa Scheepers at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	All contractor activities on the site and external to the development site are to be regulated via the Contractors Code of Conduct. If necessary, disciplinary measures are to be rolled out via the Site management's internal disciplinary process. This assumes that site staff can be directly linked to disorderly and illegal behaviour that results in social ills.
Poppie Howell indicated that due to Bokpoort and future developments. A major social impact will be felt as "Solar	Poppie Howell at the Scoping Phase Public Participation	One of the mitigation measures that will be proposed is that a Contractor's Code of Conduct be developed and implemented. This is an important tool that will control

ISSUE/COMMENT	RAISED BY	RESPONSE
Babies" will be born. How will this be prevented or mitigated. She also indicated that the spreading of HIV/ AIDS is a major concern.	•	and monitor the contractor's behaviour within and external to the development site. Fraternisation with the local population would also have certain moral and ethical criteria to be followed.
Susanna Booyens indicated in her letter that she and the public do not have a problem with the construction of such projects in the area. She mentioned that there is unhappiness in regards to foreigners being used as labour on such projects. She indicated that the town is being neglected and suffers due to infrastructure damages by trucks and vehicles for the project. She indicated that the town/ community is very small and poor and the locals feel that more can be done to create jobs for them on the proposed sites.		The EAP supplied Ms. Booyens with the BID document that supplies her with the requested information regarding the 3 proposed projects and the EIA phase. The EAP also informed Ms. Booyens that the project is currently in the EIA phase and that any information regarding when construction would start and how to apply cannot be given yet as it is not yet available. The EAP indicated that information regarding construction will most likely be communicated to the Local Municipality to be communicated to all.
She also asked the following questions:		
When does the proposed construction start?		
• What are the 3 projects about?		
<ul> <li>If I want to apply for a job during construction, how do I go about doing it?</li> </ul>		
What should my qualifications be?		
<ul> <li>What do I have to keep with me during application?</li> </ul>		
The Groblershoop Farmers Association indicated:	Groblershoop Farmers	The issue with regards to the residence of 'illegal' migrants is a Government issue to
During the construction phase hundreds of local labour get work for a limited time period as well as during longer periods of available work there is an abnormal influx of labour to the area, which after completion of the work	Association (Andre Kruger) via e-mailed letter sent on the 8 December 2015. As per e-mail request from Peter Kotze on 3 <sup>rd</sup>	tackle. Site management can render the correct communication to migrants with regards to their legal status period while in South Africa, and can also forward all migrant details to the Department of Labour (as a lawful action). However, Site management cannot enforce the law.

ISSUE/COMMENT	RAISED BY	RESPONSE
remains in the area, especially experts from outside of South Africa without the required work permits, which once again creates problems for tax-payers in terms of healthcare as a single factor.	of December 2015	Should the influx of labour become a very real, uncontrolled challenge, then it is suggested that a Migrant Labour Influx Control Plan be developed together with the local municipality. While Site management will never be in a position to enforce laws, they can however enforce the plan.
Mr van Eck further indicated that he is currently assisting with the SDF and that there is a clear indication that there is not enough property and infrastructure to accommodate the development of the proposed 16 solar projects in the area. Therefore some form of assistance would be needed from these projects to help the surrounding communities. He did indicate that this would mainly be the responsibility of the municipality to address, but that assistance would be appreciated.	Mr van Eck at the EIA Public Meeting held on the 29 <sup>th</sup> of March 2016 at Groblershoop	The projects will include budgets for Socio-Economic Development initiatives as well as Enterprise Development initiatives. The ultimate committee appointed to manage these budgets can work with the Municipality to identify Municipal projects that may be included as supported initiatives.
Mr Kruger mentioned that the foreigners from Spain, working on site, are causing major social problems in the surrounding area. This includes prostitution, drugs etc.	Andre Kruger at the EIA Public Meeting held on the 29 <sup>th</sup> of March 2016 at Groblershoop	One of the mitigation measures that are proposed is that a Contractor's Code of Conduct be developed and implemented. This is an important tool that will control and monitor the contractors' behaviour within and external to the development site. Fraternisation with the local population would also have certain moral and ethical criteria to be followed.
Mr Kruger indicated that socio-economic impacts are a major problem due to the projects. He indicated that a broader base of representatives be accessed when a community representative board is created for the Sand Draai projects. He indicated that currently there is very little variation of representatives in the current meetings taking place for Bokpoort.	Andre Kruger at the EIA Public Meeting held on the 29 <sup>th</sup> of March 2016 at Groblershoop	The EMPr has stated as a condition that a Residents Forum be created or the existing Groblershoop Interest Group utilised where the broader community and its leaders can communicate, report and monitor any situations.
Mr Kruger indicated that these projects do create job opportunities. But after construction was completed, theft, robberies and poaching has increased dramatically. This is due to labourers not being willing to go back to minimum wage salaries. He also indicated that foreign	Andre Kruger at the EIA Public Meeting held on the 29 <sup>th</sup> of March 2016 at Groblershoop	Mitigation measures for the management of illegal workers and also the management of criminal activities have been provided for in the EMPr.

ISSUE/COMMENT	RAISED BY	RESPONSE
labourers become a problem and also cause problems. He indicated that some of these labourers do not have legal documentation to be in South Africa.		

# 7. SAFETY

ISSUE/COMMENT	RAISED BY	RESPONSE
The farmers indicated that accidents, on the gravel road, happen on a regular basis. These accidents are caused by the dust that impairs visibility, the bad condition of the road etc.	Louis Kotze, Peter Kotze, Wilco Fourie & Johan Maritz at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	The Proponent is aware of the inadequacy of the portion of the Gariep Road that extends from the N8 to the Transnet service road in supporting the traffic of construction and operations for the planned projects. To date the Proponent has engaged with local stakeholders considering efforts to improve the suitability of the road for industrial and agricultural purposes, such stakeholders include: Northern Cape Department of Roads and Public Works, ACWA Power Solafrica Bokpoort CSP Power Plant, Eskom, and Transnet. The Proponent will progress these discussions and evaluate detailed engineering solutions. A detailed solution will be reported and incorporated into the EIA report
Ms Mans queried whether the glare will have any impacts on humans. She indicated that the current glare form Abengoa is very bad and might have major impacts on the eye sight of humans.	Jacoline Mans at the Stakeholder Meeting held on the 30 <sup>th</sup> of March 2016 at Upington	Looking at the receiver from outside the solar field will be like looking at a bright object, not harmful, but not recommended for a long stare. The heliostat aiming software prohibits reflected sunlight from reaching the plant boundary at grade level. As such, if a person is standing next to the site fence, there won't be any glare or concentrated flux from the heliostats. Naturally, this won't be the case at the elevation of the receiver. To limit damage to passing birds, the standby aim points are selected such that the maximum flux anywhere in the zone above and to the sides of the receiver will likely be limited to 4 suns. At the elevation of any planes flying over the plant, the flux is much less than 4 suns. As such, the potential for harming anyone due to heliostat reflections, at grade or above the receiver, is essentially zero.

# 8. GENERAL

ISSUE/COMMENT	RAISED BY	RESPONSE
Peter Kotze indicated that they as farmers do not have sufficient internet or the time to go and review at any Scoping and EIA reports at local areas. He therefore requested that these reports be delivered to them, in either hard copy or soft copy (on CD) format, personally or by courier at their houses.	Peter Kotze at the Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	Malcolm Roods indicated that the EAP will deliver CD's or hard copies to the landowner. Copies of CD's will also be left at the public library for collection.
Louis Kotze indicated that Bokpoort CSP is already being constructed and that agreements and promises, that were made during the EIA process for Bokpoort, have not been adhered to or kept (as they fell through the cracks when the contract was given to ACWA). He requested that a clause or method be looked at that will ensure that any agreements made be kept. The example to this statement is the upkeep of the N8 & N14 gravel road that has been a problem area.	Louis Kotze at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	<ul> <li>During the EIA phase an Environmental Management Programme (EMPr) will be created that sets out measures and action plans for the entire the life cycle of the project.</li> <li>This includes the: <ul> <li>Pre-Construction Phase;</li> <li>Construction Phase; and</li> <li>Decommissioning &amp; Rehabilitation Phase</li> </ul> </li> <li>Royal HaskoningDHV and the Proponent will pay specific attention to ensuring that all public meeting discussions are captured in detail, all commitments during the EIA conducted will be captured in the EIA report, and all commitments post the EIA captured in the EMPr.</li> </ul>
Louis Kotze indicated that it must be known and kept in mind that the N8 & N14 road was designed and constructed for the use of transporting farm goods and vehicles. It was not designed to carry heavy load vehicles that deliver materials to the Bokpoort site. That is why the road is being destroyed. Mr L Kotze indicated that there is no other option but to tar that road if it is to be used for the planned future developments which include Bokpoort 2 Expansion and the 3 Sand Draai plants.	Louis Kotze at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	The Proponent is of the view that the current gravel surface of the portion of the Gariep Road that extends from the N8 to the Transnet service road is not suitable for the construction and operation requirement of the project. The Proponent understands that Bokpoort CSP may consider implementing measures in the short-term that may improve the quality of the road. In addition to Bokpoort CSP, multiple other project developers are actively pursuing solar power and potentially other large-scale infrastructure developments in the vicinity of the project and for their purposes will be traversing the road as well. A coordinated approach will therefore be required

ISSUE/COMMENT	RAISED BY	RESPONSE
		to ensure that any short-term and/or permanent solutions that will be implemented on the road will be suitable for the planned infrastructure as well as other stakeholders including Eskom, Transnet, the Department of Roads and Public Works, local farmers, and citizens that regularly travel this route. The Proponent will engage with all stakeholders towards identifying feasible solutions that are suitable to all stakeholder groups. Certain improvements may require the commitment of all stakeholders; in these cases the entire burden cannot reasonably be undertaken by the Proponent on it's own.
Louis Kotze raised his concern that, at the moment, contractors are using the gravel road between the N14 and the Transnet bridge and cross over a small canal bridge that is not designed to carry such heavy loads. He indicated that if this bridge is to collapse and prevent water from reaching the farmers, it would have cost implications of millions of Rands.	Louis Kotze at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	More than one study (Air Quality, Economic Assessment) indicated that the northern Gariep road be avoided at all times. This recommendation has also been addressed in the EMPr where it was conditioned that only the southern Gariep road (N8 access road) be used by contractors as access to site.
Will other similar EIAs being conducted previously and in the past be used as a guideline on preventing the same mistakes from being made?	Poppie Howell at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	All available resources are being used to ensure that future mistakes are not to be repeated and that all impacts receive adequate attention.
A published article indicated that allot of Northern Countries have fallen short on the sustainability of solar projects. Factors such as government subsidies expenditures that can't be accounted for and that led to financial ruins. Is there a way to assure financial accountability can be monitored to foresee better outcomes for South African solar farms?	Poppie Howell at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	The South African Department of Energy has been careful to limit and monitor the deployment of solar power projects over the first 5 years of the DOE Renewable Energy IPP programme. This cautious approach allows the DOE to monitor progress and the merits of solar power as well as ensuring that they do not overcommit to long-term procurement in terms of their financial capabilities.
		In terms of the structure of the DOE's Renewable Energy IPP programme, the DOE/Eskom will enter into 20-year agreements with the Projects in which they agree to pay the Project for any power delivered to the national grid. All other risks are transferred to the Project and its Shareholders, such risks including:

ISSUE/COMMENT	RAISED BY	RESPONSE
		on-time and on-budget construction, plant operations and performance, and financial management.
If projects are to be abandoned due to financial shortfalls, what precautions are in place to ensure that pollution, which would normally have been contained due to	Poppie Howell at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	During the EIA phase a Environmental Management Programme (EMPr) will be created that sets out measure and action plans for the entire life cycle of the project.
presence on site and maintenance, will not pollute the area? On who would the responsibility rest?		This includes the:
		Pre-Construction Phase;
		Construction Phase; and
		Decommissioning & Rehabilitation Phase
		These measures, accompanied with anything that was put forward in the Environmental Authorisation must be complied to for successful decommissioning and rehabilitation.
Can records like Environmental Authorisations, EMPrs and Construction Contractual Terms etc. be placed on the internet for local access. Through this the public would be able to monitor if compliance goals are being met?	Poppie Howell at the Scoping Phase Public Participation Meeting held on the 20 <sup>th</sup> of July 2015	This will be produced to all I&APs on request prior to construction commencement. These documents will also be freely available and kept on site.
Objection is being raised, by Mr Andre Kruger, against the construction of the Sand Draai projects.	Andre Kruger via e-mail sent on the 20 <sup>th</sup> of July 2015	During the EIA phase an Environmental Management Programme (EMPr) will be created that sets out measures and action plans for the entire the life cycle
He further stated that all agreements and solutions being		of the project. This includes the:
decided on to mitigate or prevent any further impacts must be set prerequisites to ensure that they are being		
followed. All solutions must also be completed before any reports are submitted to the Department of Environmental		<ul><li>Pre-Construction Phase;</li><li>Construction Phase; and</li></ul>
Affairs for consideration by all prospective developer.		<ul> <li>Decommissioning &amp; Rehabilitation Phase</li> </ul>
		, and the second s
		Royal HaskoningDHV and the Proponent will pay specific attention to ensuring that all public meeting discussions are captured in detail, all commitments during the EIA conducted will be captured in the EIA report, and all

ISSUE/COMMENT	RAISED BY	RESPONSE
		commitments post the EIA captured in the EMPr.
The Groblershoop Farmers Association indicated: The fundamental rights as set out in the Regulations of Human Rights in the Constitutional Act 108/96 should be abided by, consequently interested parties (I&AP) are insisting to have written contracts with the developers to state their responsibilities and non-compliance rights to obtain the proper legal representation should these contracts not be abided by in terms of Act 38 of the Constitutional Law 108/96 and all other associated, consequential Laws to get implemented accordingly. Alternatively the developers should purchase all the surrounding properties as well as the areas/properties next to the access roads, which will mean that only the developer gets affected by the immediate impact, because the affected parties cannot carry the resulting damages and the diligent negligence accountability needs to be determined in writing in favour of the affected parties and righteousness thereof. The experience with construction, confirmed that although limited conditions were set in the area, enforcing the conditions is impossible and when reporting it, people simply say they don't know, which is totally unacceptable. The impact studies/report (audit reports), which is supposed to be done monthly and submitted to the Environmental Department is in no way accessible and the affected parties have no input to these reports. The fact that these reports are not accessible, is not to the best interest of the IAP's photos and written undertakings. In other words; documented proof of lots of the problems	Groblershoop Farmers Association (Andre Kruger) via e-mailed letter sent on the 8 <sup>th</sup> of December 2015. As per e-mail request from Peter Kotze on 3 December 2015	<ul> <li>During the EIA phase an Environmental Management Programme (EMPr) will be developed that sets out measures and action plans for the entire the life cycle of the project.</li> <li>This includes the: <ul> <li>Pre-Construction Phase;</li> <li>Construction Phase; and</li> <li>Decommissioning &amp; Rehabilitation Phase</li> </ul> </li> <li>Royal HaskoningDHV and the Proponent will pay specific attention to ensuring that all public meeting discussions are captured in detail, all commitments during the EIA conducted will be captured in the EIA report, and all commitments post the EIA captured in the EMPr.</li> <li>The Environmental Authorisation and EMPr will also indicate that monthly ECO audits be undertaken and reports be created. The ECO reports will always be obtainable as they are to be kept on file at all times on site.</li> <li>Strict compliance with the EA conditions and EMPr recommendations is required to avoid non-compliance and enforcement procedures in terms of NEMA by the National DEA.</li> </ul>

ISSUE/COMMENT	RAISED BY	RESPONSE
with the construction of Bokpoort 1 is in our possession for collection in Groblershoop on register upon receiving written admittance of receipt.		
Mr Kruger stated that all solutions and commitments must be placed in a contract and not in a Memorandum of Understanding as was suggested by the social specialist. He also stated that no construction is to be undertaken until this contract has been set up.	Andre Kruger at the Public Meeting held on the 29 <sup>th</sup> of March 2016 at Groblershoop	It would be inconsiderate for the Proponent to be overly specific about commitments at this stage, and in doing so limit its responsibilities towards issues that emerge between now and construction. It will also be necessary for the Proponent to liaise and collaborate with other developers that have similar interests and plans in the neighbouring area. The Proponent therefore commits to an inclusive and on-going process that will result in feasible solutions that are supported by all stakeholder groups prior to the commencement of construction. This process will include representatives from all the developers of the different projects in the area.
		It has been stated in the EMPr as a condition that Contractual Agreements be created on all commitments and solutions found during the inclusive and on- going collaborations between all the Proponent, the Developers, the Municipality and I&APs. No construction is to be undertaken until everyone is in agreement.
The potential developers (Bokpoort; Sand Draai; Namakwari and Albany) should step into an agreement indicating, that if the developments continue, conditions		The Proponent is willing to create a platform, where issues and solutions can be discussed between the Proponent, the Contractors, the Municipality, Provincial and any I&APs can be discussed and solutions are then found.
and commitments will be placed on the table to ensure that access roads will be financed by the projects and that the taxpayer is not burdened with the expenses which will only benefit the developers. Each developer must ensure and contribute the cost of the said upgrading the access roads, as a minimum requirement.		It would be inconsiderate for the Proponent to be overly specific about its commitments at this stage, and in doing so limit its responsibilities towards issues that emerge between now and construction. It will also be necessary for the Proponent to liaise and collaborate with other developers that have similar interests and plans in the neighbouring area. The Proponent therefore commits to an inclusive and on-going process that will result in feasible solutions that are supported by all stakeholder groups prior to the commencement of construction. This process will include representatives from all the developers of the different projects in the area.

ISSUE/COMMENT	RAISED BY	RESPONSE
The use of English in all the reports, that were made available, is not acceptable in the Northern Cape Province which is a predominantly Afrikaans speaking area. A large percentage of the communities have received no education in English, thus making the reports incomprehensible.	Letter received via e-mailed letter sent on the 6 <sup>th</sup> of April 2016 by Mr Andre Kruger	Letters, BID documents, presentations and notifications sent to I&APs were done in both Afrikaans and English as far as possible. Any one on one communication with I&AP was undertaken according to the language of their choice. However, to translate detailed reports as this the EAP thought it best to keep it in English as to prevent any important technical information from being lost in translation.
The ECO reports (for Sand Draai) must be provided to the Interested & Affected parties on a monthly basis, as a fundamental right. As stated and must be enforced.	Letter received via e-mailed letter sent on the 6 <sup>th</sup> of April 2016 by Mr Andre Kruger	ECO reports will be forwarded to the DEA as per the conditions of the Environmental Authorisation. All ECO reports are to be kept on file on site as set out by the Environmental Authorisation. These ECO reports can be accessed on site.
All commitments contained and reflected in the minutes must be included in written agreements. Experience has shown that commitments be given lightly and bona fides of the makers are strongly questioned as was experienced with the access roads and businesses where no action was taken.	Letter received via e-mailed letter sent on the 6t <sup>h</sup> of April 2016 by Mr Andre Kruger	The Proponent is willing to create a platform, where issues, commitments and solutions can be discussed between the Proponent, the Contractors, the Municipality, Provincial and any I&APs can be discussed and solutions are then found.
Minutes of the meeting of 29 February 2016 is being awaited for attention and review. Contact details of Namakwari and Albany developers have been given to Mr Rwigema for the purpose of arranging a meeting at Groblershoop to address the access routes and to get a permanent solution.		It would be inconsiderate for the Proponent to be overly specific about its commitments at this stage, and in doing so limit its responsibilities towards issues that emerge between now and construction. It will also be necessary for the Proponent to liaise and collaborate with other developers that have similar interests and plans in the neighbouring area. The Proponent therefore commits to an inclusive and on-going process that will result in feasible solutions that are supported by all stakeholder groups prior to the
For the review of the final reports, hard copies are required to be sent to me before submission to		commencement of construction. This process will include representatives from all the developers of the different projects in the area.
Department of Environmental Affairs in order to ensure that all I&AP interests and comments have been addressed.		Minutes of the EIA phase meetings will be sent out to all I&APs and Stakeholders
		The EIA Regulations (2014) does not make provision for the review of final documents by the I&APs. The EAP will however provide Mr Kruger with a copy of the report in soft copy.

ISSUE/COMMENT	RAISED BY	RESPONSE
The Department of Environmental Affairs (DEA) reference numbers provided in the BID (14/12/16/3/3/3/202; 14/12/16/3/3/3/202 and 14/12/16/3/3/2/813) differ from the reference numbers provided in the draft EIA report (14/12/16/3/3/3/204 and 14/12/16/3/3/3/205). The numbers supplied in the draft EIA report will be used from here onwards.	Letter received via e-mailed letter sent on the 19 <sup>th</sup> of April 2016 by Ms Jacoline Mans. (Department of Agriculture, Forestry and Fisheries)	The change in DEA reference numbers was communicated during the Scoping phase and also during the Stakeholder meeting that was held on the 21 <sup>st</sup> of July 2015. Ms Mans was not able to attend the meeting of the 21 <sup>st</sup> of July 2015.
As indicated in earlier comments on the BID, the proposed CSP plant with Central Receiver technology and a maximum generation capacity of 150 MW on the farm Sand Draai 391, is located immediately adjacent of the existing Bokpoort Solar Energy Facility, which was also developed by Solafrica and had significant impacts on <i>Boscia albitrunca</i> and other protected plants and trees. The developer should note that the Department of Agriculture, Forestry and Fisheries (DAFF) will assess cumulative impacts on slow-growing protected trees within the same geographical area. If a certain threshold is exceeded (number of mature and sub-adult protected trees to be destroyed), the development may trigger an offset under the National Forests Act (NFA) 84 of 1998. An Environmental Offset may be requested when negative unavoidable impacts on slow-growing protected trees cannot be mitigated to an acceptable level. It may have financial implications.	Letter received via e-mailed letter sent on the 19 <sup>th</sup> of April 2016 by Ms Jacoline Mans. (Department of Agriculture, Forestry and Fisheries)	This matter was discussed during the Stakeholder Meeting that was held in Upington on the 30 <sup>th</sup> of March 2016. The Proponent and Ms Mans agreed that, in developing the necessary budgets for the projects, DAFF will be consulted to establish whether any offset may be required. It was also indicated that a site walkthrough would be undertaken by a specialist (Botanist) that will do a count of all affected Red Listed species. The data will be used to apply for permits from NCDENC and DAFF.
In comments on the BID, the DAFF requested that potential impacts on protected trees be assessed and accurate estimations be provided on numbers of trees to be destroyed per species and size classes and per project. The EIA report confirmed the presence of three (3) NFA listed protected tree species on site, but gave no	Letter received via e-mailed letter sent on the 19 <sup>th</sup> of April 2016 by Ms Jacoline Mans. (Department of Agriculture, Forestry and Fisheries)	This matter was discussed during the Stakeholder Meeting that was held in Upington on the 30 <sup>th</sup> of March 2016. The Proponent had indicated that he is aware of the risk and will keep the advice from Ms Mans in mind. It was indicated that a process will be followed as soon as possible.

ISSUE/COMMENT	RAISED BY	RESPONSE
indication of the numbers of trees to be destroyed or in what densities the trees are present on site in the different vegetation types. The draft EIA report recommended that a botanist or qualified plant ecologist do a walk-through and protected tree survey (page 177) to guide permitting requirements prior to construction. Although acceptable, it is late in the process and may delay getting a Forest Act License, especially if an offset is triggered under the NFA. This Department recommends that the walk-through be conducted sooner rather than later and the information be provided to the DAFF and DENC.		
Page 142 of the draft EIA report suggested that a rescue, recovery and re-location programme be undertaken by a Botanist, especially for geophytes and Aloes, before construction. Kindly note that many Aloe species occurring in the Northern Cape are protected under the Northern Cape Nature Conservation Act 9 of 2009 (NCNCA) and may not be disturbed or re-located without a valid Flora Permit from the provincial Department of Environment and Nature Conservation (DENC). None of the reports mentioned the NCNCA under applicable legislation. It was also omitted from the EMPr. The NCNCA is applicable and must be consulted, because clearing of common indigenous, protected or	Letter received via e-mailed letter sent on the 19 <sup>th</sup> of April 2016 by Ms Jacoline Mans. (Department of Agriculture, Forestry and Fisheries)	During the Stakeholder meeting that was undertaken on the 30 <sup>th</sup> of March 2016 it was indicated that a site walkthrough would be undertaken by a specialist (Botanist) that will do a count of all affected Red Listed species. The data will be used to apply for permits from NCDENC and DAFF. The final EIA report and the EMPr was amended to include the Northern Cape Nature Conservation Act No 9 of 2009 (NCNCA) under Chapter 6, Sections 49 - 54.
specially protected fauna and flora is subjected to valid Fauna and Flora Permits under this Act.		
The draft EIA and EMPr refer to a development footprint of 1 000 ha, but page 53 of the specialist Ecological Survey refers to a footprint of 350 ha for the CSP plant. Kindly confirm the size of the development footprint for the CSP plant based on Central Receiver technology and	Letter received via e-mailed letter sent on the 19 <sup>th</sup> of April 2016 by Ms Jacoline Mans. (Department of Agriculture, Forestry and Fisheries)	The matter was addressed and corrected within the identified Ecological Survey. The correct size of the development is approximately 1 000 ha.

ISSUE/COMMENT	RAISED BY	RESPONSE
its associated infrastructure.		
Page 52 refers to the locality of the project and stated that "The study area is situated within the Siyanda District Municipality, in the Northern Cape Province." Kindly note the name of the District Municipality has changed to Z.F. Mgcawu District Municipality	on the 19 <sup>th</sup> of April 2016 by Ms Jacoline Mans. (Department of	Changes have been made to the EIA report accordingly.
Page 11 of the draft EIA report, number 1.3.2 refers to the zoning and stated that "Solafrica has indicated that a zoning application for agriculture as well as special use (solar power plant) is in the process of being undertaken at the !Kheis Local Municipality. This application will be applicable to the entire Sand Draai farm." Please note that any land demarcated as agricultural land under the Sub-Division of Agricultural Land Act 70 of 1970 (SALA) cannot be changed to any other land use without the supported recommendation from the Minister under Act 70 of 1970. A local authority cannot change the zoning of demarcated agricultural land to any other zoning without a letter from the Registrar of this Act. In addition, all renewable energy projects leasing land for 10 years or longer must submit a long term lease application in accordance with the SALA. For more information, contact the Directorate: Land Use and Soil Management in the DAFF at Tel. (012) 319 7508	on the 19 <sup>th</sup> of April 2016 by Ms Jacoline Mans. (Department of Agriculture, Forestry and Fisheries)	

## PLEASE NOTE:

Several of the issues raised as part of the public participation process have been deemed to be beyond the scope of this EIA study. Such issues are with respect to other solar plants in the area and whilst these issues have a bearing on the assessment of cumulative impacts, this involves the assimilation of monitoring data over a period (2 – 5 years) that will fully address the nature of these impacts and issues.

Notwithstanding the above, the EAPs have tried their best to address these impacts and issues together with the specialist team.