

**PROPOSED ILANGA SOLAR THERMAL POWER PLANT AS PART OF THE FUTURE KAROSHOEK SOLAR THERMAL PARK,  
 NORTHERN CAPE**

**COMMENTS AND RESPONSE REPORT – JULY 2011**

<b>No.</b>	<b>Issue</b>	<b>Raised by</b>	<b>Response</b>
<b>General</b>			
1.	I live at Karos, have olive trees, and am a visionary and enjoy helping in projects that make a positive impact.	Donovan Richmond, Kalahari Timbers, reply form received via fax 11 November 2010.	Noted.
2.	Owens property that does not have Eskom power, and where solar power is a possibility.	Hendrik Stefanus Duvenhage, Farmer, reply received via fax 14 November 2010.	Noted.
3.	Affected party that resides adjacent to Matjiesrivier 41/2.	Leon Olivier, Geaffekteerde Party, comment made at meeting, 01 December 2010.	Noted.
4.	Do not think there will be a need for a large number of houses to be developed. The community must be careful of random development.	Donovan Richmond, Kalahari Timbers, reply form received via fax 11 November 2010.	Noted.
5.	There is a possible benefit for locals, as local stands next to the river can be developed to meet this housing need.	J Coetzee, Byna Bolandbou Unie, comment made at meeting, 01 December 2010.	Noted.
6.	Affected party. Tenant - Matjiesrivier 41/2. Neighbour – Annashoek 41/3.	Ernst Krapohl, Iritron Agtien B/C Boerdery, comment made at meeting, 01 December 2010.	Noted.
7.	Raisin factory for power.	J. van der Colff, Carp Dien Raisins Farm, comment	Noted.

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		received at meeting, 01 December 2010.	
8.	Landowner of Portion 959 Karos. Very exciting!	Fritz van Rensburg, landowner, reply form received at meeting, 01 December 2010.	Noted.
9.	I like to support your ILANGA establishment initiative. The property or stand nr i like to offer are leerkrans perseel 224(residential stand 1.1 ha with canal water), and perseel 702(3 Ha and it is bordering Leerkrans location. It is extremely well situated near the national road for any kind of development (see maps).	Pieter Nel, comment received via email, 08 December 2010.	Noted.
10.	We operate a lodge to the north of your proposed solar facility (on the other side of the river). We pride ourselves on the unspoilt Kgalagadi tranquillity that we offer our guests amongst the red dunes.	Beulah de Klerk, Kuthula Farm Lodge, comment received via email, 09 January 2010.	Noted.
11.	The proposed development can aid to alleviate poverty amongst the workers of Matjiesrivier. I support this development 100%. I own 2 ha of property with a 4 bedroom house which I will put up for sale for the proposed development.	Hannelie Willemse, Reply form received via fax, 21 January 2011.	Noted.
12.	Industry player. Particularly interested in water use and project footprint. Incremental environmental effects of multiple developments.	Nasi Rwigema, Solafrica Thermal Energy, reply form received via email, 07 April 2011.	Noted.
13.	The community is positive about the proposed project and wants to be involved.	J Saunderson y, comment received at meeting, 23 June	Noted.

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		2011.	
14.	Have you liaised with the local municipality?	Jakes Nakoo, Siyanda District Municipality, question made at meeting, 24 June 2011.	The EAP met with them in the Scoping Phase. They were sent a copy of the draft EIA Report and a meeting was requested during the review period of the draft EIA Report, however no one was available. The developer met with the City Manager of the Khara Hais Municipality. It has been confirmed that the project falls within the SDF plan of ward 11. The philosophy of the broader Karoshhoek Solar facility is similar to what is proposed for the Solar park, which is located in ward 7. The municipality is supportive of the proposed Ilanga project as they believe the project will benefit the local communities.
15.	What do you require from us?	Jakes Nakoo, Siyanda District Municipality, question made at meeting, 24 June 2011.	Any comments you may have would be included within our final submission to the competent authority.
<b>Timelines</b>			
16.	Please advise on the timeline for this project in terms of completion of the EIA?	JHG Fourie, Stukkie Vrede Boerdery, comment received at meeting, 01 December 2010.	The Scoping Phase was completed in March 2011, and the EIA Phase culminated with the submission of this Final EIA Report to DEA in July 2011. Following the review of this report by the competent authority for a period of approximately 105 days, an authorisation will be issued followed by an appeals process. The construction phase should take approximately 24-36 months, and the intent is to have the facility operational by 2015.
17.	How will the development benefit farmers? What are the timelines for the project?	Donovan Richmond, Kalahari Timbers, reply form received via fax 11 November 2010.	
18.	Is the project on track in terms of programme, and when will construction begin?	Donovan Richmond, Kalahari Timbers, comment made at public meeting, 23 June 2011.	
19.	Is there anything that could stop the project from happening?	J Saunderson, comment made at public meeting, 23 June 2011.	
			The delay that is being faced as developers wait for the procurement process.

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20.	Why is the process for renewable energy so slow?	WJJ Burger, comment made at public meeting, 23 June 2011.	There are several role-players which all need to work together to make the process a success – i.e. NERSA and Department of Energy, and Treasury who has become involved to ensure guarantees for payment of electricity supplied by IPPs. The process has been complex and complicated due to various criteria which have been proposed and worked through. Other Government Stakeholders view the REFIT process as not competitive on price and hence they would like to see a bidding process that asks developers to bid on price in addition to other selection criteria.
21.	What is the proposed programme going forward?	Jakes Nakoo, Siyanda District Municipality, question made at meeting, 24 June 2011.	This is dependent on how the government planning proceeds. The Central Energy Fund and the Department of Energy are looking at a solar corridor in the Northern Cape; the idea is to include existing projects as part of the corridor.
<b>Technical Details</b>			
22.	Please provide clarity on the total park in terms of Ilanga and Karoshoek. What is envisaged in future for the entire Karoshoek facility and what role does the Ilanga Solar Thermal Park play in terms of capacity?	Johan Botha, BWUA, comment received at meeting, 01 December 2010.	The EIA currently underway is for the assessment of "Project Ilanga" which is a solar thermal power plant of 125 MW. This, in the future is proposed to form part of a larger solar thermal power park, which will be known as the Karoshoek Solar Thermal Park which will house up to 1 GW located in the broader study area of about 26 000 ha. The Karoshoek park will be made up of a number of future solar thermal power plants such as Ilanga, and will be developed in a phased approach. All other developments which form part of the broader Karoshoek Solar Thermal Park will be the subject of separate EIA processes.
23.	Requested more details regarding the project scope, i.e. abstraction points from the Orange	JHG Fourie, Stukkie Vrede Boerdery comment received at	All registered I&APs were notified of the availability of the Draft EIA Report which considered more detail about the

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	River, etc.	meeting, 01 December 2010.	proposed project than the Scoping Report.
24.	Who will be an affected party? Who are the developers of this project?	SD van Huyssteen, Sultan Boerdery, comment received at meeting, 01 December 2010.	<p>Anyone who has an interest in the project, or is affected by it can be registered as an I&amp;AP on the project database.</p> <p>Ilangalethu Solar Power is the development company. Pancho Ndebele is the project manager and can be contacted on 074 349 4336. Ilangalethu's directors are representatives from the following organisations that are shareholders of the company; the Industrial Development Corporation (IDC), Development Bank of Southern Africa (DBSA), Siemens, and Emvelo</p>
25.	Where will the power line feed into? Does it have sufficient capacity?	PK Sanderson, comment made at public meeting, 23 June 2011.	<p>A power line will be established to connect with the existing Gordonia – Garona 132 kV power line located north of the site. This line has sufficient capacity to integrate the proposed 125 MW to be generated by Project Ilanga into the electricity grid. Concentrating solar power is dispatchable which is good for the grid operator.</p>
26.	Why was this area chosen when there is better irradiation further down the river closer to areas like Onseepkans and Pofadder?	Donovan Richmond, Kalahari Timbers, comment made at public meeting, 23 June 2011.	<p>The irradiation in the study area is very good and measurements are currently being undertaken on-site showing approximately 2 800 kWh/m<sup>2</sup> per year. Other selection criteria included a means of transporting the infrastructure to site (i.e. access from the N10, and a distance of only 30 km from the airport), proximity to a water source, proximity to communities for the provision of labour (i.e. job opportunities), proximity to the 132 kV transmission and the future planned 400 kV transmission line in the area which could be used for the evacuation of 1 GW for the broader Karoshoek Solar Park.</p>

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27.	How will the mirrors be kept clean?	Donovan Richmond, Kalahari Timbers, comment made at public meeting, 23 June 2011.	The mirrors will be washed with water. The volume of 224 000 m <sup>3</sup> /year that has been proposed includes the water volumes required for operation, the cleaning of the mirrors, and potable water requirements.
28.	Will 100% of the power be sold to Eskom or will some be made available for local use?	Ben van Staden, comment made at meeting, 23 June 2011.	As per the power purchase agreement there can only be one buyer of the electricity (i.e. Eskom). It may be possible to do a wheeling agreement for large entities (such as a mine), but not for single households. A producer cannot ask Eskom to reduce the tariff but can ask Eskom that the power is locally used. A key question in reducing electricity costs is how future housing in the area can self-generate using other alternatives like PV, such that the costs of electricity can be maintained in the long-term
29.	Please clarify the pricing from NERSA.	Ben van Staden, comment made at meeting, 23 June 2011.	The first tariffs were published in 2009. A revised tariff was published in the March 2011 consultation paper. Developers are waiting for NERSA to publish the tariffs for the first round of renewable energy procurement.
30.	Is the development land privately owned?	Jakes Nakoo, Siyanda District Municipality, question made at meeting, 24 June 2011.	The land is currently privately owned. However, there is an option to purchase by Ilangalethu should the project be authorised.
31.	How far is the site from the road?	Jakes Nakoo, Siyanda District Municipality, question made at meeting, 24 June 2011.	Approximately 10 km.
32.	Are there any public roads crossing the site?	Jakes Nakoo, Siyanda District Municipality, question made at meeting, 24 June 2011.	No, the site can be accessed directly off the N10; where after Site 1.2 can be accessed via an existing gravel road.
33.	There is no district map showing all the solar projects proposed for the area. We need to understand the impacts of all the proposed projects on the area. The main economic	Jakes Nakoo, Siyanda District Municipality, question made at meeting, 24 June 2011.	Noted.

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	activity is agriculture and therefore it is important to understand the impact of these projects on this industry, as well as on local roads.		
34.	Should abnormal loads have to be transported by road to the site, a permit needs to be obtained from the Provincial Government Northern Cape (PGNC).	Rene De Kock, SANRAL, letter received dated 19 July 2011.	Some of the power block components may be defined as abnormal loads in terms of the Road Traffic Act (Act No. 29 of 1989) <sup>1</sup> by virtue of dimensional limitations (i.e. length and weight). In some instances, the dimensional requirements of the loads to be transported (e.g. the boiler, the steam turbine, the main transformers, etc.) may require alterations to the existing road infrastructure (i.e. widening on corners), and protection of road-related structures (i.e. bridges, culverts, etc.) due to those loads that are defined as abnormal.
35.	The solar thermal power plant must be at least 500 m from the road reserve fence.	Rene De Kock, SANRAL, letter received dated 19 July 2011.	THE STPP will be located >5 km from the road reserve fence.
36.	Access to such installation to be provided from secondary roads.	Rene De Kock, SANRAL, letter received dated 19 July 2011.	The study site is accessible via the N10 from Upington to Groblershoop. Access off the N10 will be facilitated via an existing access road on the Farm Annashoek. A new road will branch off this existing road and lead to the area designated for the facility (i.e. a distance of approximately 1.2 km). The new road is required for construction purposes and is likely to remain in place for maintenance purposes during the operational phase.
<b>Job / Business Opportunities</b>			
37.	How will the development benefit farmers?	Donovan Richmond, Kalahari Timbers, reply form received via fax 11 November 2010.	The development, predominantly the construction phase, is likely to positively affect local businesses through local procurement and job opportunities which will be prioritised

<sup>1</sup> A permit will be required for the transportation of these abnormal loads on public roads.

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38.	Will the development pose any advantage to my business?	Flyn Meyer, Meyer Motor en Stuart Diens gemerrnskyn se Voertuie, reply form received at meeting, 01 December 2010.	as far as possible. Those that can provide services will have to compete for the work through a normal tender process.
39.	What is the possibility of involving local service providers as part of the operational phase of the facility? There are always promises made to use local companies, but from experience, international or national companies were always employed as opposed to the locals.	Hannes Van Biljon, Plot 43, comment made at meeting, 01 December 2010.	Any procurement related queries are forwarded to the developer.
40.	Land owner. Preparation of construction area.	Willhelm Goussard. Good Skiniwing en Megeinies, reply form received at meeting, 01 December 2010.	
41.	I would like to urge farmers in the area to assess the facility and determine how they can benefit from the development. Experience has shown (e.g. such as in Secunda with the SASOL development) that some farmers did not participate in the development from the start, and now lost the opportunity to benefit from the project.	J Coetzee, Byna Bolandbou Unie, comment made at meeting, 01 December 2010.	
42.	Will there be any work opportunities in terms of kitchen cabinets or any woodwork to be done.	Leon Erasmus, Wingerd Boer, and Houtwerk Fabriek, reply received at meeting, 01 December 2010.	
43.	I would like to become a service provider in future.	William Kokome, Reply form received via fax, 25 January 2011.	
44.	My husband has been living in Upington for the	Jeanette, comment received via	

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	<p>past 14 months while our children and I are residing in Pretoria. I have been looking for work since May 2010 and have been keeping an eye on the press for any work related to the solar power projects in Upington and the surrounding area. I know that all of these projects are still in their planning phases. Could you please provide me with details regarding when the project will start, and if a staff agency will be appointed.</p>	<p>email, 04 July 2011.</p>	
45.	<p>My father owns 2 properties located approximately 27km from Upington on the Groblershoop road to Matjiesrivier (i.e. properties 462 en 147). The properties with accommodation are in good condition and are ideal to live in. We are currently living on these 2 properties, and are interested in selling these 2 properties to Ilanga in the future for use as accommodation, offices, or for storing space. These properties are ideally situated for the proposed development. Please see the attached aerial photo. Dimensions of these 2 properties are available.</p>	<p>Johan De Witt, comment received via email, 05 July 2011.</p>	
46.	<p>Will jobs be mainly available for skilled people? Local benefits are important.</p>	<p>Jakes Nakoo, Siyanda District Municipality, question made at meeting, 24 June 2011.</p>	<p>On average an estimated labour force of 600 – 800 will be used on-site during the construction phase. However during peak construction periods approximately 800 – 1000 workers will be required on-site. These positions will be comprised of low skilled, semi-skilled, and skilled workers, the latter of which will most likely be sourced outside Upington (i.e. if these skills are unavailable).</p>

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<b>Agricultural Activities and Labour</b>			
47.	How will the development affect my agricultural activities? Labour? Advantages?	Jannie Saunderson, JHC Saunderson, reply form submitted at meeting, 01 December 2010.	No direct impact on agricultural activities in the surrounding areas is anticipated because of the proposed project. However, farming activities in close proximity to the proposed development may be indirectly affected through the possible "loss" of seasonal workers for the local grape and raisin farming community. Should the local labourers usually used for the harvesting (January until March) and pruning activities (July to August) be employed as part of the permanent construction team, it may result in a situation whereby the local farmers would not have sufficient resources available to assist them with their farming practices. However, some local farmers are not only employing local labourers but also recruit from nearby towns or outside the municipal area (i.e. Kuruman, Kakamas, Keimoes, etc.). Should there be a shortage of local labourers, it is however anticipated that it could again be mitigated by sourcing temporary labourers from elsewhere to assist the farmers with their farming practices during peak times.
48.	How will my agricultural activities be affected, and my labour at my farming activities. How will the value of my property be affected?	Pieter Saunderson, Boer, reply form received at meeting, 01 December 2010.	
49.	Land owner. Property lies adjacent to the area where the development is proposed. Impact on my farming activities, areas surrounding my property, my labour force, and our weir. Impacts from elements brought in from outside.	Jonnie Fourie, Boerdery-Stukkie Vrede, reply form received at meeting, 01 December 2010.	
50.	I am the owner of Sultan Boerdery which lies adjacent to the farm Annashoek. I reside on the farm and my farming activities will be affected. I have various questions regarding the impact and long term effect of the project and I would like to meet with the specialist consultants.	SD van Huyssteen, Eienaar van plaas Annashoek, reply form received via fax 13 December 2010.	
51.	I'm an irrigation farmer at Sultana Oord (Matjiesfontein). Concerned about labour force and the value of irrigation land.	HG de Witt, Boer, reply form received via fax 14 December 2010.	
52.	Value of agricultural land. Labour force will become expensive and unavailable.	Farmers from Sultana- Oord, reply received via fax 14 December 2010.	
53.	Where will the workers for the proposed project stay for the duration of the construction period?	VE van Zyl, Farmer, comment made at meeting, 01 December 2010.	

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54.	In the case where workers are sourced from outside - where will they stay? Not sure if there are sufficient existing facilities in the surrounding areas to house the entire construction workforce. This could be problematic, as workers from outside of the area would need to be housed.	VE van Zyl, Farmer, comment made at meeting, 01 December 2010.	the latter of which will most likely be sourced outside Upington (i.e. as these skills are unlikely to be available within the local community). One of the objectives of the project is to create job opportunities for locally skilled people. Training and development will be provided by the EPC partner.
55.	How many people are expected to come into the area? Where will they be housed - in Upington or in nearby towns? Will local labour be used?	F. Mayer, question made at meeting, 23 June 2011.	Existing water infrastructure (i.e. weirs) will not be affected as the abstraction point and associated infrastructure will not traverse any surrounding properties.
56.	What is the estimated number of jobs proposed for Ilanga and Karoshoek respectively?	Johan Botha, BWUA, question made at meeting, 01 December 2010.	
57.	How will the development affect my agricultural activities? Labour? Advantages?	Jannie Saunderson, JHC Saunderson, reply form submitted at meeting, 01 December 2010.	
58.	What job opportunities will be available for local skills such as engineers?	F. Mayer, comment made at meeting, 23 June 2011.	
59.	Are there any current plans to use land that has agricultural potential?	Johan Botha, BWUA, question made at meeting, 01 December 2010.	The land that has agricultural potential (land in close proximity to the Orange River) is not planned to be used for the facility. Land with high agricultural potential is classified as sensitive land on the sensitivity map, and it is recommended that this will not form part of the development footprint.
60.	How many people will be permanently employed at the facility?	F Slabbert, Slabbert Bouers, question made at meeting, 01 December 2010.	During the operational phase approximately 100 staff members are expected to be required on-site.
61.	Parts of the study site have been identified as	Ben van Staden, comment	Existing agricultural activities on the site will continue, with

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	being of higher agricultural potential for viticulture (i.e. fruit or vineyards). What is the potential to establish viticulture in areas that are not going to be used for the facility? What else can be done to enhance current grape farming activities?	made at meeting, 23 June 2011.	the aim of creating community beneficiation schemes which will provide employment not related to the CSP facility. A separate study is being undertaken to assess what other types of activities can be undertaken on the site, particularly those that will have positive benefits for surrounding communities. Agricultural activities are destined to become a key component of the broader project. The developer will use the local knowledge in developing this component of the project.
62.	Will the facility be placed on land of high agricultural potential?	Jakes Nakoo, Siyanda District Municipality, question made at meeting, 24 June 2011.	Areas of higher agricultural potential were identified across the broader site. The infrastructure has been placed in such a way as to avoid those areas of higher agricultural potential, mainly located closer to the river in the north of the study area.
<b>Health, Safety, and Security</b>			
63.	Concerned about the social impact, especially regarding the strangers that will reside in our direct environment. Where do the construction workers come from and where will they be residing? How many permanent workers will there be and where will they be living?	Hein van Dyk, Grond eienaar, reply form received at meeting, 01 December 2010.	During the construction phase a maximum of 100 construction workers may be accommodated on site, while the rest (i.e. those who will not commute from their residences) are expected to be accommodated at existing accommodation facilities in the study area. Construction equipment will need to be stored at appropriate locations on site.  An inflow of workers could, as a worst case scenario and irrespective of the size of the workforce, pose some security risks. Criminals could also use the opportunity due to "outsiders" being in the area to undertake their criminal activities. The actual safety of construction workers is also of concern. Further health and safety issues associated with the actual construction site include unauthorised entry
64.	Concerned about an increase in crime in the area; i.e. livestock theft. This is a major concern being an adjacent landowner to Farms Karos and Zandemm.	VE van Zyl, Farmer, comment made at meeting, 01 December 2010.	
65.	Hotspots/ problem areas should be identified early in the process, and the developer should be proactive in addressing these issues, i.e. extra security measures should be implemented in these areas.	J Coetzee, Byna Bolandbou Unie, comment made at meeting, 01 December 2010.	

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66.	Will there be permanent housing facilities built for this permanent workforce?	VE van Zyl, Farmer, comment made at meeting, 01 December 2010.	to the site and construction areas, the usage of large equipment on site, the risks associated with the storage of equipment and material on site, as well as the increased risk of accidents due to the increased movement of construction vehicles on the local roads.  Other concerns relate to littering, unwanted behaviour of construction workers, transmission of Sexually Transmitted Diseases (STDs), environmental pollution, an increase risk in fires and so forth. Mitigation and management measures have been proposed in the Environmental Management Programme (refer to Appendix L).
67.	I'm an irrigation farmer at Sultana Oord (Matjiesfontein). Concerned about security.	HG de Witt, Boer, reply form received via fax 14 December 2010.	
68.	I am concerned about security and theft.	Van Ellewee van Zyl, Boer, reply form received via fax 15 December 2010.	
69.	Concerns about security and housing of workers.	Farmers from Sultana- Oord, reply received via fax 14 December 2010.	
70.	Therminol VP1 or Dowtherm, the synthetic oil you are proposing to use as a heat transfer fluid (HTF) is extremely pungent and carcinogenic. We are "downwind" from you in one of the major wind directions in the area, please outline in detail how you are going to manage the oilage system and give a full description of its operation and maintenance.	Beulah de Klerk, Kuthula Farm Lodge, comment received via email, 09 January 2010.	The synthetic oil used as the heat transfer fluid will be housed in sealed receiver collectors and pipes and therefore no smell is expected to affected landowner downwind. For a full description of the "oilage" system, please refer to Chapter three of the Final EIA Report.
71.	For HTF leaks, and there will be many in the solar field, how are you going to manage the spillage and its clean-up? We do not want the first downpour to wash this into the Gariep system.	Beulah de Klerk, Kuthula Farm Lodge, comment received via email, 09 January 2010.	HTF leakages are unlikely as the plant will be designed and operated as a closed system. However, leakages are further prevented by using interconnection elements (ball joints).  Mitigation and management measures to deal with potential leakages are proposed in the Environmental Management Programme (refer to Appendix L). For example should there be any contamination of the soil this can be remediated using bacteriological decontamination

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72.	You are further proposing the use of fossil fuels as well, what are you specifying as the proposed air quality - are we going to become a "Witbank" having to sip sun downers at the lodge with smoke bellowing from you chimneys? Please quantify your emissions profile and mitigation.	Beulah de Klerk, Kuthula Farm Lodge, comment received via email, 09 January 2010.	<p>During the operational phase, limited gaseous or particulate emissions are anticipated from exhaust emissions (i.e. from operational vehicles), and from the augmentation plant which will use fossil fuels for the proposed 15% augmentation. According to National Environmental Management: Air Quality Act, an air emissions license is not required for power generation facilities with a capacity of less than 50 MW. Out of a maximum generating capacity of 125 MW, the expected air emissions for Project Ilanga will be approximately 18 MW (i.e. 15% of the maximum) and therefore no license will be required, if supplementary firing is used.</p> <p>Mitigation measures are proposed in the Environmental Management Programme for potential dust and vehicle emissions. Mitigation measures would be included in the design process for the augmentation plant.</p>
73.	The storage salts you are proposing (nitrates), and oil are very effectively used in our mining industry as an explosive - please elaborate how you are going to avoid causing "fireworks"?	Beulah de Klerk, Kuthula Farm Lodge, comment received via email, 09 January 2010.	Storage salts used for CSP plants are not explosive.
<b>Noise</b>			
74.	I reside near the project and must know if noise impacts are expected and if my property will be in jeopardy.	Leon Erasmus, Wingerd Boer and Houtwerk Fabriek, comment received at meeting, 01 December 2010.	Based on the findings of the EIA Study, potential noise related impacts were identified as being of potential low significance as no potential noise sensitive receptors are located in the immediate vicinity of the proposed site.
75.	Is there a noise factor associated with the proposed solar thermal power plant? In terms of noise, what will happen if a noise sensitive	SD van Huyssteen, Sultan Boerdery, comment made at meeting, 01 December 2010.	However any receptor located within 2 km of the proposed development site may be affected. However, during the construction phase noise related impacts are anticipated to

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76.	receptor would fall within that 2 km buffer? What noise impacts will there be?	Farmers from Sultana- Oord, reply received via fax 14 December 2010.	emanate from heavy vehicles travelling to and from the site, the noise created by the "reverse indication" of the trucks, the noise generated by the general construction activities, and the noise from the individuals residing at the accommodation facility. Given the general low ambient noise levels in the area, this could be particularly intrusive <b>on site</b> , for those in <b>sufficiently close proximity</b> to the accommodation facility and along the N10 where most of the people and vehicle movement is expected.
77.	Further would your fossil fuels be delivered by road transport? We pride ourselves on peace and tranquillity. Are we now going to hear the exhaust break systems of your supply convoy through the night on the winding Upington to Groblershoop road? What is your proposed delivery schedule?	Beulah de Klerk, Kuthula Farm Lodge, comment received via email, 09 January 2010.	Delivery vehicles and heavy machinery will be used in accordance with the OHS Act. Construction activities generating high noise output levels will be confined to the hours 07h00 to 18h00 Monday to Fridays.
<b>Lighting</b>			
78.	Our pristine night sky to the south will now have the glow of your security lighting etc. How are you going to mitigate this impact?	Beulah de Klerk, Kuthula Farm Lodge, comment received via email, 09 January 2010.	Mitigation of this impact entails the pro-active design, planning, and specification lighting for the STPP by a lighting engineer. The correct specification and placement of lighting and light fixtures will go far to contain rather than spread the light. The significance of this potential impact was noted as low with the implementation of mitigation measures.
<b>Climate</b>			
79.	What will the impact be on the microclimate?	Farmers from Sultana- Oord, reply received via fax 14 December 2010.	A change in weather patterns is not anticipated because of the solar thermal power plant. This can be based on international observations, i.e. Spain.
80.	How will the solar thermal power plant affect	J van der Colff, Carpe Diem,	

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	the weather in the area?	comment made at meeting, 01 December 2010.	
81.	Will the solar thermal power plant create a vacuum of heat around the facility, or emit any heat?	SD van Huyssteen, Sultan Boerdery, comment made at meeting, 01 December 2010.	
<b>Water</b>			
82.	What type of cooling system will be used, and how much water is anticipated to be used for the proposed development?	OJJ Burger, I&AP, comment made at meeting, 01 December 2010.	A dry cooling system is proposed, which will use approximately 224 000 m <sup>3</sup> /a.
83.	How much water will the facility require?	Wilhelm Goussard, WH Goussard Meganies Goussard How much water will the facility require	
84.	What will be the impact on water?	Johan Botha, BWUA, comment made at meeting, 01 December 2010.	Water resources may be affected in terms of quantity and quality. Approximately 224 000m <sup>3</sup> /a will be abstracted which may affect the quantity for downstream users. The water quality may be affected through pollution, and sedimentation.
85.	What percentage of water will be lost through evaporation?	Hannes Van Biljon, Plot 43, comment made at meeting, 01 December 2010.	Thermal power plants lose minimal amounts of water through evaporation; the conceptual design currently being developed will give estimates of the percentage of water that will be lost through evaporation.
86.	Are you going to use the same amount/volume of space/water for the 1 GW facility? Does an EIA need to be undertaken every time?	Donovan Richmond, Kalahari Timbers, comment made at public meeting, 23 June 2011.	The water required for the 125 MW facility is 224 000m <sup>3</sup> /year using dry cooling. Wet cooling would require approximately 1 000 000 m <sup>3</sup> /year. Therefore for the entire 1 GW facility it is estimated that approximately 1 000 000 m <sup>3</sup> /year will be required, using dry cooling. The EIA process was undertaken only for the 125 MW. Therefore future developments will require separate EIAs.

<b>No.</b>	<b>Issue</b>	<b>Raised by</b>	<b>Response</b>
87.	Has the department approved the water use license? What volume has been approved?	JA Erasmus, Kalahari Timbers, comment made at public meeting, 23 June 2011.	No water use license has been issued yet. The issuance of such as license will occur once an environmental authorisation and a generation license have been granted.
88.	What is the possibility of getting additional water down the canal as a result of this project?	J. Saunderson, comment made at public meeting, 23 June 2011.	Studies which have been undertaken for the project have considered the water requirements for the plant alone. As the initiative develops, it would be possible to consider how assistance can be given to the community (such as assisting with additional water in the canal downstream of the site. Other agricultural initiatives would consider specific water requirements of these activities, and any issues with the canal and associated requirements for upgrade.
89.	What volume of water will be required?	Mashudu Ranwedzi, comment made at public meeting, 22 June 2011.	Approximately 224 000 m <sup>3</sup> /year will be required for the 125 MW facility using dry cooling.
90.	What are the existing water use rights of the property?	Mashudu Ranwedzi, comment made at public meeting, 22 June 2011.	The water is used for existing agricultural activities, and for the Uppington Water User Association. These agricultural activities will remain. Additional water will be required for the solar facility. This volume of water will be applied for in the Water Use License.
91.	A water use license will be required in terms of the National Water Act Section 21 c and i. An integrated application for all relevant activities must be submitted. The application should be submitted as soon as possible.	Mashudu Ranwedzi, comment made at public meeting, 22 June 2011.	Noted.
92.	What will happen to the back wash water?	Mashudu Ranwedzi, comment made at public meeting, 22 June 2011.	The water will be recycled within the plant, until it is eventually pumped to evaporation ponds. The solar facility will be a Zero Liquid Effluent Discharge (ZLED) facility.
93.	What is the height of the walls for the reservoirs? If it is more than 5 m it will require	Mashudu Ranwedzi, comment made at public meeting, 22	It is currently estimated at 4.84 m but may increase as the water requirements may change depending on the final

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	a license.	June 2011.	design of the facility. The issue of more than 5 m only applies to concrete dams and not to a steel reservoir.
<b>Ecology</b>			
94.	How many protected tree species will be affected by the proposed project?	Jacoline Mans, Department of Forestry, comment made at meeting, 24 June 2011.	The specialist has estimated between 100 and 200 Shepard's Trees could be affected by the proposed development.
95.	This is a concern as the Shepard's Tree is endemic. What mitigation is being proposed?	Jacoline Mans, Department of Forestry, comment made at meeting, 24 June 2011.	As the impact cannot be avoided, an offset could be considered.
96.	SANBI is currently compiling guidelines for offset areas.	Jacoline Mans, Department of Forestry, comment made at meeting, 24 June 2011.	Noted.
97.	Have you consulted Northern Cape Nature Conservation?	Jacoline Mans, Department of Forestry, comment made at meeting, 24 June 2011.	The EAP was advised to contact Ms Christine Pienaar at the Kimberley office; however she could not be reached. As such Anga Yaphi of the same department was liaised with through the EIA process.
98.	The minimum area for conservation within the Northern Cape is 2000 ha.	Jacoline Mans, Department of Forestry, comment made at meeting, 24 June 2011.	Of the 2 000 ha site proposed for the broader Karoshoeck site, only about 10 000 ha is useable for the proposed development. The rest of the area is not suitable for development. This remaining area could be conserved through stewardship. Water offsets could include working with working for water and cleaning of the river.
99.	If <i>Prosopis</i> is cleared it will regrow. Beware of the use of chemicals, especially in terms of the risk of water pollution. There is no bio-control for <i>Prosopis</i> and therefore control will need to be mechanical/ manual.	Jacoline Mans, Department of Forestry, comment made at meeting, 24 June 2011.	Everything which is to be done must be sustainable. A follow through programme is important especially for the clearing of aliens.
100.	The ecological study that was attached as Appendix E refers. Page 34 of the report refers to the impact on protected tree species. The	Jacoline Mans, Department of Forestry, comment made via email, 28 June 2011.	The reference to permit applications has a mitigation measure has been amended within the EIA report, as well as within the Ecological Report. During the meeting held

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	<p>Department of Forestry noted with concern that according to this report 'no mitigation is necessary'. An estimated 200 protected <i>Boscia albitrunca</i> trees will be affected by the development. Obtaining a license for the removal of such trees cannot be deemed as a mitigation measure. It is a legal requirement to enable the applicant to disturb protected tree species in order to comply with the National Forests Act. Licenses can be and have been refused in the past. If the impact on long-lived slow-growing protected tree species cannot be avoided mitigation is definitely required.</p>		<p>with the Department on 24 June 2011 (refer to points 91 – 96), the issue of developing an offset area is proposed (refer to point 95 specifically) as a possible mitigation measure. This issue was further discussed with the Department on site during a site visit with the developer. 21 July 2011.</p>
101.	<p>The Department of Forestry recommends that total vegetation clearance be avoided during the construction phase. Even if vegetation clearance is restricted to the actual development footprint, a large number of protected <i>B. albitrunca</i> can be saved if vegetation can be retained between the PV panels, thus minimising the impact on protected trees.</p>	<p>Jacoline Mans, Department of Forestry, comment made via email, 28 June 2011.</p>	<p>An email was sent in response to this comment dated 29 June 2011:  <i>The reference to maintaining individuals of B. Albitrunca between the PV panels. This project is not using PV panels, it is using parabolic troughs. As such no vegetation can remain between the troughs which will comprise the majority of the developmental footprint due to potential shading issues and fire risks.</i></p>
102.	<p>The specialist distinguished between the impacts on indigenous natural vegetation (terrestrial), threatened plants and protected trees. He mentioned that five plants species of conservation concern may occur in the study area and listed it in Appendix 1 on page 64 of his report. Although <i>Hoodia gordonii</i> is</p>	<p>Jacoline Mans, Department of Forestry, comment made via email, 28 June 2011.</p>	<p>Noted. The relocation of protected species, following the receipt of the relevant permits, has been included in the EMP included as part of the final EIA Report.</p>

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	<p>included in the list, other protected species such as <i>Harpagophytum procumbens</i> and <i>Sutherlandia frutescens</i> may also be present on site. If affected by the proposed development, protected species should be relocated to suitable alternatives sites after obtaining necessary permits from the relevant authorities.</p>		
103.	<p>No development should be allowed in the critically endangered Lower Gariiep Alluvial Vegetation type.</p>	<p>Jacoline Mans, Department of Forestry, comment made via email, 28 June 2011.</p>	<p>The only development that will occur here is the expansion of the abstraction point and the associated pipelines. However it must be noted that the proposed site for this infrastructure is on land that has already been transformed (i.e. no natural vegetation remains).</p>
104.	<p>The only thing that I can emphasise is delineation of the environmental sensitive areas that may be affected and degradation avoided at all times. Otherwise I do not have any objection.</p>	<p>Anga Yaphi, Northern Cape Department of Environment and Nature Conservation, comment raised via email, 13 July 2011.</p>	<p>Environmentally sensitive areas have been identified as in the EIA Report (refer specifically to Appendix M). Mitigation and management measures aimed at avoiding/controlling potential degradation in these areas have been included as part of the EMP.</p>
105.	<ul style="list-style-type: none"> <li>• The social benefits and the developmental impacts far outweigh a small number of protected trees.</li> <li>• Ilangalethu will look at offsets that are part of the Social and CSR initiatives. The focus will be on growing Pecan nuts for the benefit of the community.</li> <li>• The site is very vast and the CSP footprint is small when one puts things into perspective.</li> <li>• Supportive of the plant and the big vision.</li> </ul>	<p>Jacoline Mans and Livhumani Nemaconde, comment made at site inspection, 19 July 2011.</p>	<p>Comments noted.</p>