WIND ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE

ISSUES AND RESPONSE REPORT: I&APs & STAKEHOLDERS
Scoping Phase

No.	Issue	Raised by	Response
		Impact on Birdlife	
1	Is there any known impact on birdlife?	Bob Garner, Wildlife and Environmental Society, Project Field Manager – Bitterfontein (reply form)	Wind energy facilities can impact on birdlife. International studies have shown this impact to be very low compared to other sources of human-caused avian mortality on a per structure basis site-specific (Kingsley & Whittam, 2005). An avifauna study is being undertaken as part of this EIA in order to assess the potential impact for this facility.
2	What is the effect of the plant on birds?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	
3	Birds like pelicans, flamingos and terns migrate via the Olifants River. The area is a breeding ground. Birds and animals hearing is much more sensitive than humans.	Suzanne du Plessis, Friend of Doringbaai (reply form)	The Olifants River has been identified as an important bird area. The impact on birdlife as a result of this facility will be clarified during the detailed avifauna study.
4	Bird studies should include data for longer than 12 months, especially migratory routes and ground breeding species.	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Comment noted. Concern to be communicated to the avifauna specialist for consideration in the detailed assessment phase. The assessment phase will include consultation with local stakeholders who hold relevant knowledge of birdlife local to the site.
		Roads and Road Access	
5	Divisional Road 2225 (Skaapvlei) with a statutory width of 20m is affected by the proposed wind energy facility. The applicant must consult this Department in connection with the location of suitable opportunities for access to the proposed wind energy facility for approval, as well as obtain approval for any crossing of a powerlines or other services of	Lars Starke, West Coast District Roads Engineer – Ceres (reply to project e-mail)	Comments and information provided noted. The identification of the preferred access roads would form part of the transportation studies required for the project. The EIA will highlight potential impacts, and will ensure consultation with all relevant roads engineers and departments. The relevant permits required will be applied for by the transport contractor.

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	public roads and maybe affected. It should also be noted that a 95m building restriction line is applicable along all proclaimed trunk, main and divisional roads and a 500m building restriction line is applicable from the intersection of a building restriction road (trunk, main or divisional road) with any other public road in terms of Sections 9 and 9A of Act 21 of 1940 (Advertising along Roads and Ribbon Development Act, 1940) respectively. The western section of Divisional Road 2225 is a gravel road and the environmental impact assessment should address the impact of the construction process on this road.		
6	What will the impacts be on the provincial roads? What are the potential access points onto the provincial road network?	Sandy Strydom, Department of Transport and Public Works Planning Department at Western Cape Government (reply form)	The identification of the preferred access roads to be used for the project is part of the transportation studies for the project. The transportation assessment will highlight potential impacts, and will ensure consultation with all relevant roads engineers and departments. It is most likely that the National and Provincial roads will be recommended for use as these roads are able to accommodate abnormal loads. A transportation strategy will ultimately define the access roads to be used.
7	What access roads will be utilised for transporting the equipment to the proposed site?	Annali van der Westhuizen, Town Planner – Matzikama Local Municipality (reply form)	
8	Which roads will be used as the access roads? Access is an issue for the Matzikama Municipality and there must be close interaction with the district roads engineer.	Dean O'Neill – Municipal Manger and Annali van der Westhuizen – Town Planner Matzikama Municipality Focus Group Meeting, 25 July 2007	

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9	The roads are going to need to be upgraded. Which road is going to be used to access the site? Will it be the current Koekenaap road or a new road?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	The existing road between Koekenaap and the site is proposed to be used to access the site. The gravel road will be required to be upgraded to accommodate the vehicles required to access the site. On-going maintenance will be required on this access road, specifically during the construction phase. The EIA will highlight potential impacts, and will ensure consultation with all relevant roads engineers and departments.
10	How will the gravel roads be able to accommodate the types of trucks that will be used for transportation? The National road should not have a problem is supporting the traffic.	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	
11	The Skaapvlei road provides the access to Gert du Toit se Baai. By December the road is often so degraded that it is not passable in an ordinary car.	Hansie Visser – Skaapvlei, Consultation meeting, 27 July 2007	
12	The DePunt and Skaapvlei roads (the access road through the site) are used by locals when accessing crayfishing spots along the coast.	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	Comment noted. This road will remain a public access road.
13	Due to the nature of the soils, work will be required on the access roads to the site, specifically with the transportation of heavy equipment. This will also hold true for the access roads on site.	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	Comment noted. The road and on-site conditions will be determined through a geotechnical investigation.
14	Is there a possibility of the access roads to the site being tarred?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	The transportation study will determine which roads are required by Eskom during construction and operation and what upgrading of roads, if any, is required.
15	Can the Saldana Railway Line service road be used to transport equipment instead of the existing national/provincial roads?	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	This would need to be investigated with the relevant Departments and managers of the service road. In addition, the pavement condition of the road would be required to be investigated. The use of this road has not yet been investigated though the transportation study, but will be investigated in the EIA phase as an option.

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	Social Benefits		
16	This project needs to be implemented as fast a possible, but local labour and local suppliers should preferably be used as far as is practically possible.	Francois Williams, Sakeza Cape Editor – Cape Town (reply form)	Comment noted. Eskom will be addressing the concerns about local labour and local suppliers during their tender process with suppliers of the turbines. This issue will be clarified for stakeholders during the course of the EIA.
17	Since the project will be located within the Matzikama Area of the West Coast District Municipality, what social benefits can the community reap from the project?	West Coast District Municipality Focus Group Presentation to Council, 25 July 2007	The project will not require large numbers of labourers for construction. However, there is the potential for long-term employment opportunities as a result of the facility. Through this project, the Eskom Development Foundation will be investigating opportunities to contribute to the local community. This aspect will also be covered in the social impact assessment and recommendations relating to such issues will be made for consideration by Eskom. There are few people required for the installation of the facility. Indirect spin-offs are anticipated, specifically from the tourism sector. This will be the biggest wind energy facility in Africa, and from numbers recorded at the Klipheuwel facility, there is interest in viewing/visiting such a facility (recorded 4 000 people have officially visited the Klipheuwel demonstration facility near Cape Town).
18	How can the community benefit from this facility?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	
19	There are few real benefits from the project in terms of job opportunities. The real benefit of the project lies in the fact that the fuel is wind – which is free.	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	
	Fast Tracking The Project		
20	Is government doing anything to fast-track approvals on Eskoms projects? Energy projects are “life-giving”, not just to make money, and they should be given preference.	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	Eskom does not receive any preferential treatment and have to apply like any other applicant for the necessary approvals (such as EIA, NER, PFMA, etc.) However the relevant government departments are aware that these projects are important and ensure that there are limited or no unnecessary delays.
21	Are any showstoppers foreseen for this project?	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	The project has Eskom Board approval. Eskom is committed to a wind energy facility and plan to be generating by 2010. There is also Government support for renewable energy projects, which has been articulated in

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			the renewables strategy. There may, however, be issues arising out of the EIA, but these will be determined during the studies.
		Noise Levels	
22	What are the levels of noise around the turbines and surrounding areas?	Suzanne du Plessis, Friend of Doringbaai (reply form)	The turbines do generate sound, which is typically off-set by the sound of the wind. Experience at Klipheuwel has shown that additional noise added to the environment is within reasonable limits, and that those turbines were spaced far enough apart not to add cumulatively. This will, however, be assessed for this facility in the noise impact assessment is being conducted as part of the EIA process to assess the extent and significance of noise from the facility. This study will model results and will assist in clarifying concerns raised around noise levels.
23	How much noise will be produced by the proposed turbines?	Annali van der Westhuizen, Town Planner – Matzikama Local Municipality (reply form)	
24	What are the expected noise levels from an operating turbine?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	
25	Is the facility noisy?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	
		Visual Impact	
26	Why has white been selected as the colour for the turbines? Can the facility be made to blend into the surroundings?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	Worldwide the choice of the off-white colour (RAL 90/10) seems to be the most pleasing on the eye under all conditions. Experiments with multiple schemes and types of camouflage have not been effective as seasonal changes in the environment occur. The visual impact assessment will, however, consider the use of white as a standard colour for this facility.
		Site Identification	
27	Why has a place like Port Elizabeth not been considered for a wind facility?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager,	The wind resource is gusty, which is not considered an optimal resource. A small scale facility is currently under investigation in PE – this is not an Eskom project. It is

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		Transhex Focus Group Meeting, 26 July 2007, De Punt	difficult to establish a commercial facility in a built up area. Also, the wind resource is gusty, which is not considered an optimal resource.
28	Have other farms/properties also been investigated?	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	Eskom was asked to use the Regional Assessment Methodology developed by the Western Cape Department of Environmental Affairs and Development Planning to conduct a regional assessment. A larger study area north of the Olifants River was selected based on the wind resource. Through the utilisation of this methodology for this area, the site now under investigation in the EIA process was selected. This approach, and the results from the regional assessment have been considered by the DEAT. The site selection process is explained in further detail in Chapter 4 of the DSR.
29	Have alternative sites been considered for windfarms on the West Coast? If so, are these part of the EIA process? If not, please explain what site screening process was followed?	Paul Lochner, CSIR, Stellenbosch (reply form)	
Integration with the Electricity Grid			
30	How will the project be linked to the grid? Is this part of the EIA?	Paul Lochner, CSIR, Stellenbosch (reply form)	This alternative options and relevant detail would be provided as part of the detailed EIA study. It is however anticipated that the Wind Energy Facility would be linked to the grid via a 132kV distribution line linking the plant to either the Koekenaap substation or the Juno substation, thus linking into the national power grid. These alternatives will be considered further in the EIA, and alternative alignments assessed.
31	Where will the generated power go?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	
32	Where is the power planned to go? Will it feed the greater Matzikama area, or the national grid?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	
33	How many houses can be supplied by such a facility?	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	Up to 500 standard homes can be supplied by one 2MW unit when it is operating at 26% load factor.
34	How much energy is provided by one turbine – that is many houses can a turbine power up?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	

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35	Will Namakwa Sands receive the power?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	Eskom Distribution are still considering the optimum strategy for the evacuation of power. It is at present not decided if the power will be evacuated to Koekenaap substation, or Juno Substation. The electricity generated by this facility will however, go into the national power grid.
36	Will local landowners get power?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	Local landowners would be required to apply to Eskom distribution for power supply.
37	When the power cuts come, can the locals get access to electricity from this facility, especially during the harvesting period?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	The facility will feed into the national grid and no direct connection would be made from the Wind Energy Facility to the local grid.
		Project Cost	
38	What is the cost of wind power (from the project) relative to other power sources in South Africa?	Paul Lochner, CSIR, Stellenbosch (reply form)	When comparing technologies various aspects must be considered in addition to cost, such as the benefits of using renewable technologies and the contribution of various supply side and demand side options. The life cycle cost of wind energy compares favourably with other renewable technologies and technologies used to meet peaking demand. The life cycle cost compared with base
39	What is the unit cost difference compared to nuclear or coal power? What is the difference in cost to the end-user/ consumer?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	

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40	What will be the cost to the consumer in terms of electricity? How will it compare to current prices?	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	load options is not as favourable. This detail will be discussed further during the detailed EIA process. The cost of electricity is regulated, and is determined in consultation with the NERSA (National Energy Regulator of South Africa) through tariff negotiations. This facility is only a small part of the Eskom fleet (i.e. a relatively small contribution to Eskom's overall output). As such, this facility will not significantly affect electricity costs to consumers. Various financial mechanisms will be explored to absorb additional costs. This aspect will be discussed in the EIA.
41	What is the cost of 1 turbine?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Eskom assume R1.1 billion for 50 turbines, which includes costs for land, civil works and related studies. An approximate R20 Million is estimated for a 2MW turbine.
42	What is the cost of 1 turbine?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	
43	R1.1 billion is a high cost for the plant. Why is Eskom perusing this project?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	The capital expenditure is high, but is compensated for by low running costs and zero fuel costs. This is typical for renewable energy projects. This project will also add to increasing renewable technology contributions to the supply side options in South Africa. The draft scoping report describes the policy framework.
44	How many turbines will be built ?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	This EIA is for 100 turbines. The project is most likely to be carried out in two phases, with the first phase being for a 100MW facility (approximately 50 turbines).
45	Green energy is considered to be more expensive than energy produced from coal. Will government subsidise the cost of this electricity	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July	Various financial mechanisms will be investigated to address the additional costs of renewable technologies.

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	so it does not affect pricing?	2007	
	Site Waste Management		
46	During the operation and maintenance phases of the project, grease and oil will be replaced in the turbines. How will waste oils and grease be managed?	Dean O'Neill – Municipal Manger and Annali van der Westhuizen – Town Planner Matzikama Municipality Focus Group Meeting, 25 July 2007	The EMP for the construction and operation of the facility will address waste management. Waste will be required to be disposed of appropriately in line with local and national requirements.
	Agriculture Concerns		
47	There are 2 camps for sheep on the Skaapvlei farm. Rotational grazing is practiced. This farm plus the other properties owned total 18000ha, and this extent of land is important for the economical operation of the farm.	Hansie Visser – Skaapvlei, Consultation meeting, 27 July 2007	Comment noted. The impact on the economic viability of the farming operation will be considered by Eskom.
48	What extent of the land would potentially be lost for agriculture to infrastructure (i.e. road surfaces and turbines)?	Hansie Visser – Skaapvlei, Consultation meeting, 27 July 2007	This area will be determined once a more detailed site layout is available. The anticipated land take would be in the region of 25km^2. The area required for the physical plant and infrastructure will be considerably less than 25km^2, and will be provided in the EIA once a practical site layout has been determined.
49	The visitors to Gert du Toit se Baai often cause problems for his livestock – including littering and stock losses.	Hansie Visser – Skaapvlei, Consultation meeting, 27 July 2007	Comment noted.
50	How will agriculture land be affected? Specifically in the construction phase.	Dean O'Neill – Municipal Manger and Annali van der Westhuizen – Town Planner Matzikama Municipality Focus Group Meeting, 25 July 2007	The project development site is predominantly used for grazing. The site could be restricted for this purposes both during construction. There should not be any impact to agricultural lands outside of the areas affected by the project. The project manager on-site will ensure that the requirements of the EMP are adhered to.
	Environmental Concerns		
51	What environmental or biophysical loss can be expected from such a project?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze –	The site will be required to be cleared for turbine foundations, access roads, substations etc. The area does

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		Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	not rehabilitate quickly, and so disturbance during construction must be limited. Issues regarding rehabilitation will be addressed in further detail in the flora specialist study.
52	What are the limiting factors for this project? What is stopping us from blanketing the coast with wind facilities?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	The Western Cape DEA&DP have a guideline document for the Western Cape which includes buffers between facilities. These buffers take into account the potential for cumulative impacts. The other limiting factor is the wind resource. For a plant of the proposed size, reduce wind speeds would endanger the commercial viability.
53	There are 2 pans on the property – one north of road, and the other in the central area of the farm. The pan to the north of road has been dry for more than 20 years, and there is no birdlife which regularly frequents this area anymore.	Hansie Visser – Skaapvlei, Consultation meeting, 27 July 2007	Comment noted.
54	There are few environmental threats to the project for the site identified. The tortoises at Sklipadvlei must be considered.	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	Comment noted. A study of the impact on fauna is being undertaken as part of the EIA process.
55	The areas which were previously cultivated were last used more than 12 years ago. The re-growth in these areas has been slow.	Hansie Visser – Skaapvlei, Consultation meeting, 27 July 2007	Comment noted. Issues regarding rehabilitation will be addressed in further detail in the flora specialist study.
Construction Phase Concerns			
56	How many people would be required to complete this project?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	It is estimated that a construction crew will comprise approximately 15 people. There may be more than one crew on site at a time, depending on the phase of the project. The crew will consist of skilled and semi-skilled labour. No construction crews will reside on the site. All persons will be transported to site. The contractor will be required to assess the area to identify suitable places to accommodate the staff. It is likely that the relevant authority will be contacted for guidance in this regard. The EMP will deal with on-site sanitation, etc.
57	With respect to the number of people required during the construction phase: How many people will there be? Where will they live? How will sanitation facilities be provided? How will they be transported to the site?	Dean O'Neill – Municipal Manger and Annali van der Westhuizen – Town Planner Matzikama Municipality Focus Group Meeting, 25 July 2007	

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58	How many people does the construction phase require? How many non-skilled people will be required?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	
59	Where will labour be sourced from?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	Labour is skilled and semi-skilled. A portion of the crews can be sourced locally.
60	Where would the workers live?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	It is proposed that no staff live on the construction site. This will be addressed through the Environmental Management Plan (EMP).
61	What is the construction program? What is the expected start date on site?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	This is dependant on the necessary approvals from Government. This would also be dictated to by the availability of the turbines from overseas. It is anticipated however, that the first phase of the facility (approx 100MW) would be operational by June 2010 (construction is anticipated to start mid 2008 and commissioning of the first phase (100MW) by mid 2010).
		Site Footprint	
62	What is the total footprint of this plant?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	It is estimated that the facility would require a broader area of 25km^2, within which all infrastructure would be accommodated with the necessary spacing requirements.
63	When will the footprint in terms of a layout be available?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	A layout (or the micro-siting exercise) can only be finalized once the actual turbines have been selected (through the commercial process, expecting to end early next year). A practical layout could consist of a square

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			formation of about six rows of turbines in an east to west type layout.
64	Why are the units so far apart i.e. 300m apart from each other? Why does this facility need to be over a 25km^2 area?	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	It is essential that each turbine benefit from the wind resource, and so the spacing is required to limit the affects of turbulence, which would effect performance and efficiency. The final layout is yet to be designed, and may be less than 25km^2, depending on the placement of the turbines and other infrastructure.
65	Using areas which are not good for grazing and/or previously disturbed by agriculture will benefit all parties	Hansie Visser – Skaapvlei, Consultation meeting, 27 July 2007	Comment noted.
66	Can portion 11 and 12 of 158 not be considered for inclusion in the study area?	Hansie Visser – Skaapvlei, Consultation meeting, 27 July 2007	This area was not originally selected due to the close proximity of the houses at Skaapvlei. Comment noted.
Equipment Specification / Turbine Choice / Technology Choices			
67	What is the difference in performance between the 3 different turbines at Kliphuewel?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Performance is very similar, with the pitch control systems performing better in low wind speed conditions. Eskom considered established and new technologies at Kliphuewel site. The wind turbines made up of established technology performed better under low wind speeds and the performance between the two wind turbines were similarly. The third wind turbine which was the new technology did not perform as well as the wind turbines which were established under low wind speed conditions. It had varied performance under these low wind speed conditions. It also proved to technically challenging in such conditions.
68	What is the life span of the plant?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	The turbines have a design life of 20 years, which can be extended through regular maintenance and possibly refurbishment of the turbines.

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69	What is the mechanical lifespan of such a facility/equipment?	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	
70	What is the lifespan of the turbines?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	
71	Would the plant be decommissioned or would the life of the plant be extended?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	The life of the plant would most probably be extended through upgrading equipment, but this would be a commercial decision at the time.
72	What materials are going to be used to construct the turbines?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	The towers would be constructed from mild steel with concrete foundations. The blades are typically fibreglass.
73	What types of materials will be used to construct the turbine towers?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	
74	What is the utilisation factor anticipated for the plant?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	A constant wind speed of 50km/h plus for full power. The best estimation is approximately 26% utilisation.
75	How constant must the wind be in order to generate electricity and be viable?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	
76	What are the effects of abnormal wind conditions on the turbine? This should also be considered since the dust, which is quite gritty may cause damage to the turbines.	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Abnormally high winds and/or gusty conditions would result in the turbines shutting down automatically. Turbines operate in dusty conditions in, for example North Africa and Egypt, and so Eskom do not expect problems from dust.

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77	What is the effect of fog on the plant and the plant on the environment with regards to the fog?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	There is no anticipated effect of fog on the plant, as the plant is designed for a marine type environment. There may be condensation against the turbines, which could create a small micro-climate at each turbine position.
78	Where is the equipment/units coming from? Are they locally produced?	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	There is no local supplier of the turbines themselves. They will be sourced internationally. Eskom have invited companies to express their interest in supplying the equipment. This enquiry is currently still open. However, Eskom would support suppliers using local companies to manufacture some of the components (e.g. sections of the tower), where feasible.
79	Where are the turbines being sourced from?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	
80	Is there much maintenance that needs to be undertaken?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	Maintenance would be limited, with scheduled lubrication occurring twice annually.
81	What is the minimum wind speed that is required to generate electricity?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	About 15km/h.
82	Does the plant not tangle itself up on its cables when it has to turn into the wind?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	This is not an issue as it is computer controlled. The nacelle can turn 3-4 times in a direction before it needs to "unwind".
83	It is believed that the Norwegians have got the best technology, and Eskom should look at getting the latest and best technology to implement in South Africa.	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	Eskom have sent out an expression of interest for turbine supplier to respond with recommendations. Eskom will be interested in technology which is proven and tested.
84	How certain are we that we are getting good turbines and the best technology?	Lutzville Farmers Association, Focus Group	Eskom have a rigid and transparent commercial process backed by industry standard requirements and

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		Meeting Lutzville, 26 July 2007	specification.
		Property/Ownership of Site	
85	Who currently owns the land on which the proposed site lies? What are Eskom's options if this land is not made available?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	The site is made up of 3 farms, each of which is currently privately owned. These landowners have been contacted and the project discussed with them. Various strategies w.r.t. land acquisition are being investigated by Eskom, and this will be discussed in due course with the relevant landowners.
86	What would Eskoms options be if the landowners refuse to accommodate Eskom?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Eskom would have to consider an appropriate way forward if this were to occur.
87	If the sites do not work out, Namakwa Sands has other options for Eskom in terms of available land.	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Comment noted.
88	Namakwa Sands are currently prospecting on Geelwal Karoo. If Namakwa Sands mine this area, could this impact on the facility? The mine is restricted in that mining cannot be undertaken within 100m of a structure.	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Mining activities on the property between the proposed facility and the ocean would not be anticipated to affect the operation of the facility, as longs as no obstructions to the wind resource are erected.
89	What is the land purchasing strategy for the proposed site?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group Meeting, 26 July 2007, De Punt	Various strategies w.r.t. land acquisition are being investigated by Eskom, and this will be discussed in due course with the relevant landowners.
90	What is the feeling amongst the landowners regarding such a project?	Peter Slott-Nielsen – Mine Manager and Pierre Kotze – Operations Manager, Transhex Focus Group	Landowners have been approached and the project discussed with them. In general, the response has been positive to date.

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		Meeting, 26 July 2007, De Punt	
91	While consent forms were signed, nothing was mentioned about purchasing or renting the land - can Eskom advise on that?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	The consent form is for the landowner to provide consent for the EIA to be undertaken. Eskom pursue various options with regards to land purchase and/or rental of a servitude. Eskom will embark on a process to investigate these options with the affected landowners. The Land and Rights Department within Eskom will look at the available options to acquire the land.
92	The houses at Skaapvlei are occupied by TransHex employees	Hansie Visser – Skaapvlei, Consultation meeting, 27 July 2007	Comment noted.
		Safety and Security	
93	What is the security measures that will be implemented for such plant?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Appropriate security will be implemented based on the findings during the Environmental Impact Assessment and engagement with relevant stakeholders.
94	There is a concern from the farmers regarding livestock poaching. Namakwa Sands has been actively involved with the community in the provision of fences, 2-way radios, policing vehicles etc	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Comment noted.
		Other Wind Energy Ventures	
95	How many Megawatts does Darling generate? (This was a mis-understanding by the councillor that the Eskom Klipheuwel facility is the Darling Facility. This was cleared up in the discussion)	West Coast District Municipality Focus Group Presentation to Council, 25 July 2007	The Darling wind farm is a private initiative. This facility is not yet constructed, although there is an environmental approval for its construction. It is rated as approximately 4.5 MW. This is similar to the existing Klipheuwel demonstration facility operated by Eskom.
96	What is the Klipheuwel facility?	West Coast District Municipality Focus Group Presentation to Council, 25 July 2007	This is a demonstration wind energy facility constructed and operated by Eskom as a research facility. This facility has 3 installed turbines.

No.	Issue	Raised by	Response
97	Is Eskom aware that an Indian-based company have been looking at establishing a wind facility north of the current proposed site?	Matzikama Business Chamber Focus Group Meeting, 25 July 2007	Eskom are not aware of this interest. Comment noted.
98	Why is there a sudden interest in wind facilities? There has been other people in the area talking about wind energy facilities, as well as at Darling etc.	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	Eskom has been researching renewable energy technologies for some time, with a view to addi renewable energy to the supply side mix. Government has targets which will be required to be met. International companies are also showing interest in South Africa with renewable projects, as a wind farm would qualify as a CDM (cleaner development mechanism) project.
99	Who is Vestas? Their representatives have been speaking to communities in the area about wind energy facilities.	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	Vestas is a manufacturer and supplier of wind turbines with about 35% of the market worldwide. Vestas independently (from Eskom) undertaking surveys of the area to understand the local conditions in order to inform their bid to Eskom to supply turbines for the facility. Eskom do not have a preferred supplier at this time.
Wind Energy versus Nuclear Energy			
100	What is happening with respect to the Nuclear project that is currently underway? Where is this project located?	West Coast District Municipality Focus Group Presentation to Council, 25 July 2007	It was indicated by Eskom that the Nuclear Project is a completely separate process, and has no bearing on this project. An EIA is currently underway for the nuclear project. There are five sites being considered for Nuclear 1, which will be between 3500 and 4000 MW. A site near Oyster Bay in the Eastern Cape, a site near Pearly Beach and the current Koeberg site near Melkbos in the Western Cape and two sites in the Northern Cape near to Kleinsee.
101	How many MW is the Wind Facility going to generate in comparison to Koeberg nuclear power station?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	The installed capacity is approximately 10% of Koeberg – Koeberg has a nominal installed capacity of 1 930MW. Regardless, the percentage electricity generated would be far smaller for a wind energy facility, having an estimated load factor of 26% (whereas Koeberg has on average generated at load factors in excess of 80%).

No.	Issue	Raised by	Response
		Wind Energy versus Solar Energy	
102	Can this be integrated with solar technology instead?	Lutzville Farmers Association, Focus Group Meeting Lutzville, 26 July 2007	Large scale concentrating solar is not fully commercial yet. Eskom are looking at a demo plant in the Upington area for future roll out and believe solar is going to be applied far more than wind due to the abundance of resource in the Northern Cape. Wind will play its fair share specifically along the coast where fog and wind will debilitate (hamper/weaken) concentrating solar. Hence integration is challenging.
103	Has solar energy been considered for this area?	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Heat is required for energy generation with solar. This heat is affected by the windy conditions. Eskom have submitted an EIA for a pilot concentrating power plant in the Northern Cape near Upington, and are awaiting a decision. Other renewable are also being looked at from a research perspective, but Eskom focuses on mature technologies.
		Wind Data	
104	Namakwa Sands has 13 years worth of wind data, and if Eskom wants it, they would consider releasing it.	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Comment noted.
		Stakeholder Support	
105	I support the project, its better than a Nuclear Power Plant!	Suzanne du Plessis, Friend of the Black Oyster Catcher Doringbaai (reply form)	Comment noted.
106	As a journalist covering the energy sector with special interest in renewable energy. I am very positive about the project	Francois Williams, Sakeza Cape Editor – Cape Town (reply form)	Comment noted.
107	I feel that a project of such nature is too long in coming to a windy part of the world!	Bob Garner, Wildlife and Environmental Society, Project Field Manager – Bitterfontein (reply form)	Comment noted.

No.	Issue	Raised by	Response
108	If the current proposed site does not work out, Namakwa Sands has other site options available for Eskom to consider.	Namakwa Sands Management Team Focus Group Meeting, Koekenaap, 26 July 2007	Comment noted.
		Strategic supply	
109	With an eye on 2010, how is Eskom going to be preventing future power cuts, and how is this facility going to contribute to preventing such power cuts?	West Coast District Municipality Focus Group Presentation to Council, 25 July 2007	Eskom have already brought additional units on line to assist with power demand during peak periods in the Western Cape (i.e. the OCGT plants). By 2008, there will be an additional 2500MW available in the grid. The Medupi power station is currently being constructed in Limpopo Province. Eskom has dedicated personnel to address the challenges presented by 2010. The Ingula Pumped Storage Scheme is being constructed in the Drakensburg. An authorisation was received for a power station in the Kendal area in Mpumalanga, which is awaiting the appeals being resolved. The Steelpoort Pumped Storage Scheme is awaiting authorisation from DEAT.