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P O Box 31108 Tokai 7966 7 March 2017

Our Ref: ITS 2735.3.2

Attention: Nicole Holland

Dear Nicole

Springbok Wind Energy Facility – TIA Addendum

We refer to your request for the re-assessment of the Springbok Wind Energy Facility with regards to the possible change in the transport impact associated with the proposed amendment to the wind turbine layout and configuration.

Previously it was proposed to construct 37 wind turbines with a generation capacity of 1.5MW each. ITS Engineers conducted a transport impact assessment (TIA) dated October 2010 as part of the EIA process and the application was approved by DEA. It is now proposed to reduce the number of wind turbines to a maximum of 25, but increase the generation capacity to between 2MW to 4.5MW each. This will result in a total generation capacity for the Springbok Wind Energy Facility of 55.5MW, which is also the capacity currently authorised. Should the higher capacity turbines be used the number of turbines will reduce accordingly to still achieve a total generating capacity of 55.5MW. For the purposes of this report the maximum number of turbines is assessed for a possible worst case scenario. This letter summarises our findings on the assessment of the transport impact associated with the amended turbine layout and configuration and serves as an addendum to the October 2010 TIA.

The truck trip generation estimate in the October 2010 TIA was 1 400 trucks over a 12 month construction period and it is expected that with the proposed amendment to the layout and configuration the total number of trucks during the construction period will reduce to approximately 1 100 trucks. This results in a reduction of over 20 percent in the total truck traffic associated with the proposed amendment to Springbok Wind Energy Facility layout and configuration.

In the October 2010 TIA it was estimated that a total of 100 motor vehicle and truck trips will be generated during the peak hours in the construction phase, which has a low negative significance in terms of the transport impact. With the reduction in the number of turbines in the amended layout these trips will also reduce and the associated transport impact will be less than that of the previous layout with the 37 wind turbines. No significant impacts are expected in terms of road safety and operations on the surrounding road network for both the approved alternative and the amended alternative.

However, the additional truck trips during the construction phase associated with both the approved alternative and the amended alternative will have a medium impact on the road surface conditions along the surrounding road network, specifically the gravel roads.

In the October 2010 TIA ITS Engineers recommended that the gravel roads should be upgraded with a permanent sealed surface. However, the average daily traffic (ADT) along these roads are low and does not warrant a sealed surface. Although the sealed surface will reduce the long-term maintenance cost of the road. The cost of the upgrade/s is not justified based on the expected ADT during the operational phase of the project. The expected increase in the traffic volumes as a result of the Springbok Wind Energy Facility, once the construction is complete will be insignificant.

It is recommended that the gravel roads should rather be maintained on a regular basis. The roads should be graded and sprayed with water regularly to improve the road surface and restrict dust pollution and gravel loss. If possible, grey water should be sourced to spray the road. Based on the discussion above, both the approved and amended alternatives will have a low negative significance in terms of the transport impact before and after mitigation.

We hope this adequately address the transport impact for the proposed amendment to the Springbok Wind Energy Facility layout and configuration. An impact summary table is attached to this letter.

Yours Sincerely,

Christoff Krogscheepers For ITS Engineers

IMPACT SUMMARY TABLE

<u>Option</u>	<u>Nature of</u> <u>impact</u>	Extent of impact	Duration of impact	<u>Intensity</u>	Probability of occurrence	<u>Status of</u> <u>the</u> <u>impact</u>	Degree of confidence	<u>Level of</u> <u>significanc</u> <u>e</u>	Mitigation measure	<u>Significanc</u> <u>e after</u> <u>mitigation</u>
CONSTRUCTION PHASE										
FERRED OPTION	Heavy truck traffic will damage the road surface of the gravel roads.	Region	Short-term	High	Highly probable	Negative	High	Medium	The gravel roads should be maintained on a regular basis. Grading once a month with repairs where/when necessary.	Low
	Network and intersection operations	Region	Short-term	Medium	Highly probable	Neutral	High	Low	None	Low
	Abnormal load trucks will have an impact on the regional road network.	Region	Short-term	Medium	Probable	Neutral	High	Low	Rehabilitation/Road repairs when and where required	Low
D PRI										
ENDE										
AME										
OPERAT	IONAL PHASE			-					1	
	Additional vehicular trips as a result of the day to day									
7	will impact on the existing road network and intersection operations.	Site and immediate surroundings	Long-term S	Low	Probable	Neutral	High	Low	None	Low
NOIL	will impact on the existing road network and intersection operations.	Site and immediate surroundings	Long-term	Low	Probable	Neutral	High	Low	None	Low
D OPTION	will impact on the existing road network and intersection operations.	Site and immediate surroundings	S Long-term	Low	Probable	Neutral	High	Low	None	Low
RRED OPTION	will impact on the existing road network and intersection operations.	Site and immediate surroundings	Long-term	Low	Probable	Neutral	High	Low	None	Low
REFERRED OPTION	will impact on the existing road network and intersection operations.	Site and immediate surroundings	Long-term	Low	Probable	Neutral	High	Low	None	Low
D PREFERRED OPTION	will impact on the existing road network and intersection operations.	Site and immediate surroundings	S Long-term	Low	Probable	Neutral	High	Low	None	Low
ENDED PREFERRED OPTION	will impact on the existing road network and intersection operations.	Site and immediate surroundings	S Long-term	Low	Probable	Neutral	High	Low	None	Low
AMENDED PREFERRED OPTION	will impact on the existing road network and intersection operations.	Site and immediate surroundings	S Long-term	Low	Probable	Neutral	High	Low	None	Low
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