

APPENDIX D – Evaluation of impacts of the proposed line on the non Red Data bird species – Kudu Juno 400kV

Collision with earth wire = negative impact
 Habitat destruction = negative impact
 Disturbance = negative impact
 Nesting = positive impact

Note: Electrocutation of birds is highly unlikely and is not considered an impact on the proposed tower structure. On the proposed tower structure it should not be possible for birds to impact on quality of electrical supply through nesting, bird pollution and bird streamers as it is not possible for them to perch/nest above the conductors which are suspended in mid air. However it will be necessary to occasionally use strain type towers (notably at river crossings – where birds are likely to be relatively abundant) which are likely to be of the self supporting type with a “cross boat” from which conductors are suspended. Birds could perch/nest above conductors on these towers – since these towers will be in the minority – this issue is not discussed on a per species basis in these tables.

Species	Nature of Impact, general susceptibility, probability	Scale and location	Significance without mitigation	Significance with mitigation	Confidence
Water birds: Black-necked Grebe Dabchick White-breasted Cormorant Grey Heron Black-headed Heron Little Egret Cattle Egret Great White Egret Yellow-billed Egret Little Bittern Hamerkop Egyptian Goose SA Shelduck African Black Duck Southern Pochard Yellow-billed Duck Cape Teal Red-billed Teal Cape Shoveller Macoa Duck Moorhen	Most of these species are generally highly vulnerable to collision with earth wires on account of their size and wing loading. Whilst all bird species are affected to some extent by habitat destruction and disturbance, most of these species are relatively adaptable and tolerant of these impacts. Several of these species eg herons would typically impact on quality of electrical supply through roosting on towers but on the proposed tower structure this is not	These species are found in close association with water sources, of which there are very few in this study area. Water courses will be particularly important as river valleys and associated habitat form important flight paths for many species.	Collision will be medium	Low	High

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<p>Red-knobbed Coot Spur-winged Goose Reed Cormorant Darter Purple Heron</p>	<p>possible.</p>				
<p>Large & medium raptors: Black Eagle Booted Eagle Black-chested Snake Eagle African Fish Eagle Steppe Buzzard Jackal Buzzard Yellow-billed Kite</p>	<p>These species are all relatively significantly affected by disturbance and habitat destruction. In particular if any of these species are breeding near to the proposed alignment, disturbance of their breeding during construction activities could be significant.</p> <p>The eagles are not likely to nest in the “columns” of this proposed tower structure, however in the absence of any other potential nest sites it is possible.</p> <p>Impact on quality of supply through bird pollution and bird streamers is not possible on the proposed structure.</p>	<p>Most of these species can be found almost anywhere along this proposed route. On the northern section of the proposed line, where it runs adjacent to the existing Gromis-Oranjemund line, several raptor nests were seen on the existing line, birds breeding in these nests would almost certainly be disturbed by construction of the new line.</p>	<p>Although none of these species are classified as endangered, all large raptors are relatively rare and should be protected from any unnatural impacts.</p> <p>Disturbance whilst breeding near the alignment is rated as medium</p>	<p>If the suggested mitigation is implemented correctly – low</p>	<p>High/medium</p>
<p>Ibises & spoonbill: African Spoonbill Hadeda Ibis Sacred Ibis Glossy Ibis</p>	<p>These species are relatively vulnerable to collision.</p> <p>They are relatively tolerant</p>	<p>These species are generally found reasonably close to water & arable lands.</p>	<p>Collision will be medium</p>	<p>Low</p>	<p>High</p>

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	<p>of habitat destruction and disturbance.</p> <p>Impact on quality of supply through bird pollution and bird streamers is not possible on the proposed structure</p>				
<p>Corvids: Pied Crow Black Crow White-necked Raven</p>	<p>These species are very tolerant of habitat destruction and disturbance – and often exist in the most highly degraded, disturbed areas.</p> <p>These species will almost undoubtedly nest in the “columns” of the proposed tower structure, however this will have no impact on quality of supply.</p>	<p>These birds could be found anywhere along the proposed route.</p>	<p>All impacts on these species are of low significance.</p>	<p>Low</p>	<p>High</p>
<p>Large terrestrial birds: Helmeted Guineafowl Karoo Korhaan Black Korhaan</p>	<p>These species, particularly the korhaans are vulnerable to collision with earth wires.</p> <p>Habitat destruction and disturbance is not likely to impact significantly on them.</p>	<p>The korhaans will occur almost anywhere in this study area, guineafowl are usually closely associated with water.</p>	<p>Collision of the korhaans is rated as medium.</p>	<p>Low</p>	<p>Medium</p>