DETAILED ENVIRONMENTAL SCOPING REPORT

FOR THE PROPOSED ESTABLISHMENT OF A 400 kV TRANSMISSION LINE BETWEEN POSEIDON SUBSTATION (near Cookhouse) AND GRASSRIDGE SUBSTATION (near Port Elizabeth), EASTERN CAPE PROVINCE

EXECUTIVE SUMMARY

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Background to the Project

As the national electricity supply authority in South Africa, Eskom is responsible for the generation and supply of electricity to consumers throughout the country. In order to ensure that supply meets demand, the transmission of sufficient and reliable power to local substations must be assured.

For distribution to the Greater Port Elizabeth area, power supply is required to feed the Grassridge Substation, located near the town of Coega, on the outskirts of Port Elizabeth. The existing 220 kV and 400 kV Transmission lines that feed electricity from the Poseidon Substation (located near Cookhouse) to the Grassridge Substation are presently heavily loaded, and are close to reaching their full capacity of 550 megawatts. Greater Port Elizabeth's growing electricity demand, together with the proposed development of the Coega Harbour and associated Industrial Development Zone (IDZ), is placing an increasing demand on the current energy supply infrastructure to the Greater Port Elizabeth area. The existing Transmission lines do not have sufficient capacity to supply the anticipated additional load without jeopardising the supply to the current customers.

In addition, the amount of power that can currently be delivered to Grassridge Substation at any one time is solely dependent on the reliability of the existing Poseidon-Grassridge 400 kV Transmission line. The temporary loss of power transmission through this line due to failure, or the line being temporarily being taken out of service for maintenance, will result in power-outages, as the existing 220 kV Transmission line cannot supply the required load alone. Therefore, in order to reinforce the local Transmission Network's reliability by ensuring a back-up supply to the area, maintain quality of supply to customers receiving power from the Grassridge Substation, as well as meet the escalating electricity demands in the area, Eskom Transmission Group propose the establishment of a second 400 kV Transmission line between the Poseidon the Grassridge Substations.

Brief Project Description

In order to determine the most appropriate means of satisfying the need for additional electricity supply to the Greater Port Elizabeth area, a number of alternatives were investigated in terms of technical and environmental criteria. The construction of a 2nd 400 kV Transmission line between the Poseidon and Grassridge Substations has been

identified as being the most feasible option from a technical and economic perspective. This option was, therefore, earmarked for detailed environmental investigations to be undertaken.

The Poseidon and Grassridge Substations lie approximately 100 km apart (as the crow flies). In order to evaluate the sensitivity of the area between these two substations, as well as to determine the most appropriate route for the establishment of a new 400 kV Transmission line between these points, a broader study area was delineated for investigation. The environmental studies were, therefore, able to assess the viability of two alternate corridors within this study area identified as feasible alternatives (Figure 1).

- *Eskom's Existing Servitude Alignment (Corridor 1):*

  Eskom has a vacant registered servitude which extends for 85% of the distance between the two substations, and lies directly adjacent to the existing 220 kV Poseidon-Grassridge Transmission line. Use of this route would require the acquisition of a new servitude (55 m in width) for a total of 15 km (for the portions of line closest to both the substations). The 85 km of existing servitude would be required to be widened by 29 m in order to accommodate the 400 kV Cross-rope Suspension (CRS) tower design. These additional servitudes are required to be negotiated by Eskom, and will be parallel to the existing 220 kV servitude where possible. This route traverses the existing Addo Elephant National Park (AENP) across its northern arm (for a distance of approximately 5 km), as well as the area earmarked for the Greater Addo National Park (GANP) development. Unique solutions in terms of tower design will be required to accommodate the Transmission line within the restricted existing servitude through the National Park, as per the limitations imposed by the National Parks Act (No 57 of 1976).

- *Eastern Alternative Alignment (Corridor 2):*

  This route utilises approximately 50% of the northern portion of the alignment proposed for corridor 1. Both alternatives consider the use of a corridor along Eskom's existing servitude between Poseidon Substation and the northern boundary of the area earmarked for the GANP development. At this juncture, the route is proposed to divert to the east, and follow the eastern extremity of the GANP's border. This alignment follows the N10 and the GANP boundary in a southerly direction, past Paterson, over the Oliphants Kop Pass, to the N10/N2 intersection. At this point, the route is proposed to follow the alignment of the N2 in a westerly direction, through Colchester and Cannonvale, and traverse the northern boundary of the proposed Coega IDZ to the Grassridge Substation.

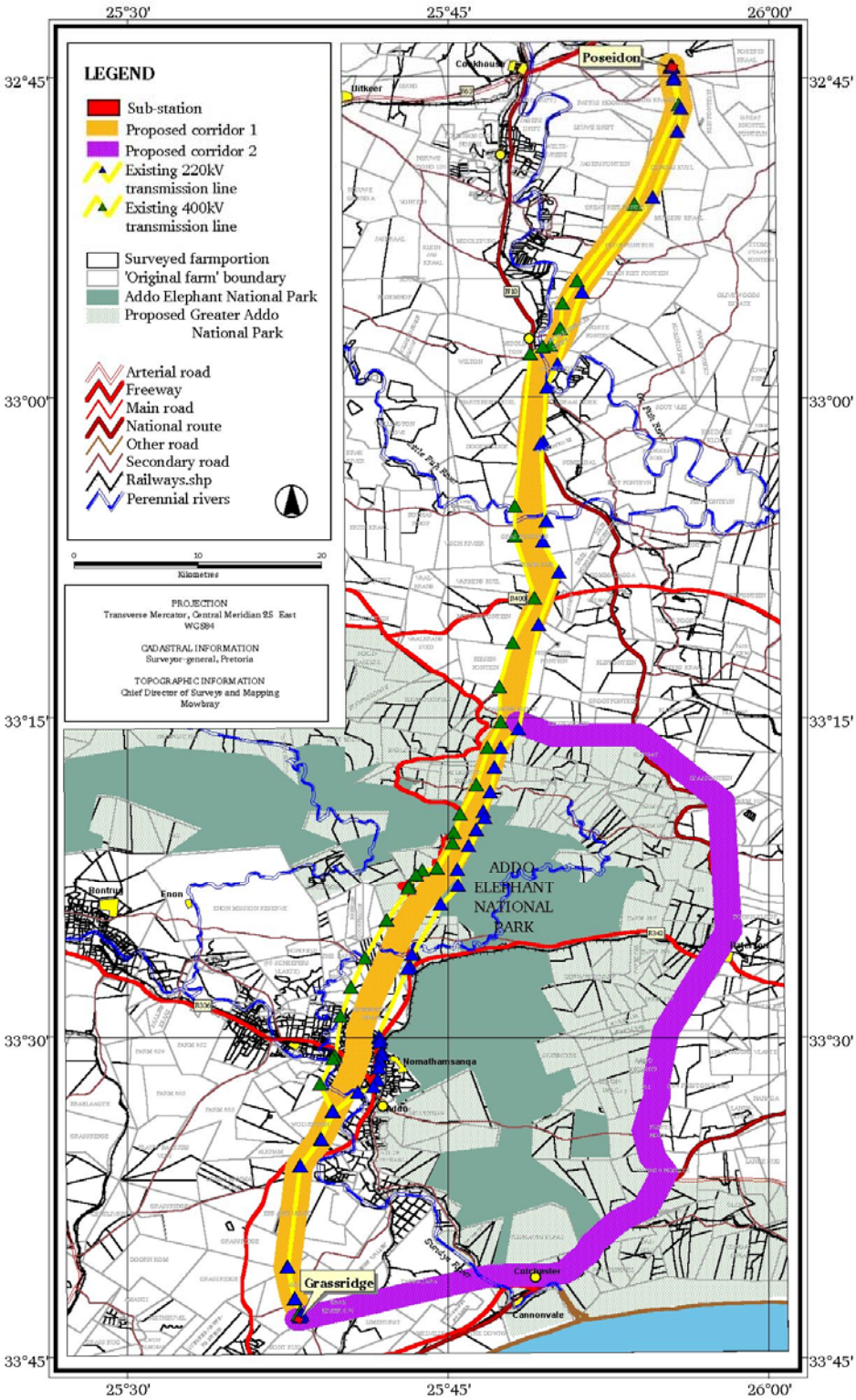

Figure 1: Map showing two alternative corridor alignments considered

Use of corridor 2 for the establishment of the proposed new Transmission line would require a new servitude (55 m in width) for the entire distance beyond the juncture with the northern boundary of the proposed GANP to Grassridge Substation. The Transmission line will pass in close proximity to the towns of Colchester on the coastal plain, and Paterson further inland. This alignment would form a completely new Transmission line corridor in this area. This route attempts to minimise traversing the existing AENP, but is unable to completely avoid crossing the area earmarked for the GANP development, as this is planned to extend southwards down to the coastline.

Scope of Environmental Investigations

An assessment of the environmental impacts of this proposed project was undertaken in accordance with the Environmental Impact Assessment (EIA) Regulations published in Government Notice R1182 to R1184 of 5 September 1997 in terms of the Environment Conservation Act (No 73 of 1989), as well as the National Environmental Management Act (NEMA; No 107 of 1998). In terms of Government Notice R1182 (Schedule 1) under the Environment Conservation Act, the construction of "facilities for commercial electricity generation and supply" is considered as a listed activity which may have an impact on the environment.

Eskom Transmission Group appointed Bohlweki Environmental as independent consultants to undertake comprehensive environmental studies required to assess all potential impacts associated with the proposed project in order to obtain the necessary authorisation for the establishment of a 400 kV Transmission line between the Poseidon and Grassridge Substations.

The environmental studies were undertaken in 2 phases:

- *Phase 1: Issues-Based Environmental Scoping Study:*

  Existing information was used to identify and highlight potential impacts (both social and biophysical) associated with the construction of the Transmission line. A preliminary desk-top investigation of these potential impacts was undertaken, the results of which were included within an issues-based Environmental Scoping Report. This report was made available for public comment in order to ensure that all potential impacts were considered within the ambit of Phase 2 of the study.

- *Phase 2: Detailed Environmental Scoping Study:*

  All potential environmental impacts (social and biophysical) identified in the issues report were further investigated and their significance evaluated. Mitigation measures were proposed, where required. This phase included an overview of the broader study area, as well as an evaluation of the two proposed corridors.

Environmental Scoping Assessment and Mitigation Measures

This study has considered, in detail, all potential impacts associated with the construction of a new 400 kV Transmission line between the Poseidon and Grassridge Substations in the Eastern Cape. This study has considered both a broader study area, as well as two potentially feasible alternative corridors for the Transmission line establishment. Through the use of specialist studies and the collation of concerns and issues raised by local I&APs, landowners and stakeholders, conclusions can be drawn and recommendations put forward for the most favourable route for this new Transmission line to follow.

Table 1 provides a summary of potential impacts associated with the proposed Transmission line which are applicable to the entire study area.

Table 2 provides a comparative evaluation of the potential impacts associated with the construction of a new 400 kV Transmission line within the proposed alternative corridors 1 and 2.

Table 1: Summary of potential impacts associated with the construction of a new 400 kV Transmission line, applicable to the entire study area

Issue	Potential Impact and Mitigation Measures
Climate	• Extreme weather phenomena are unlikely to impact on the proposed Transmission line. • Localised impacts on the Transmission line within 50 km of the coast will require mitigation measures to be implemented in order to prevent corrosion damage. Minimisation of coastal erosion through the active reduction in the length of the line within this 50 km buffer zone.
Geology	• In order to reduce the risk of landslides and erosion, construction is to be avoided on sites with slopes greater than 20° as far as possible. • Those towers located on floodplains would be at risk from flood waters which scour away sediment from around the base of towers. With the implementation of appropriate mitigation measures (e.g. the location of towers well away from river banks), this potential impact is considered to be of low intensity and significance.
Rare, endangered and threatened plant species	• The construction of the proposed Transmission line and associated infrastructure could potentially impact on the endangered, rare and threatened floral species, which have been identified to potentially occur within the study area. This impact will be localised and confined to single individuals, but will be permanent, and therefore significant. With the implementation of appropriate mitigation measures (e.g. relocation of towers, transplanting of plants), the majority of these impacts can be minimised or ameliorated.
Vegetation structure	• Construction of a Transmission line, and the associated bush clearance within the study area could potentially have a highly significant negative impact on various vegetation types which have been identified within the study area, due to the slow recovery periods of these vegetation types (e.g. xeric succulent thicket). With the implementation of Eskom's standard practices (e.g. soil erosion prevention, no clearance in sensitive areas, erection by helicopter where required in sensitive/inaccessible areas), these impacts will be largely ameliorated.
Potential for veld fires	• The vegetation types identified within the study area, particularly where alien species occur, may pose a fire risk, which could impact negatively on the reliability and operation of the Transmission line. Standard mitigation measures are implemented by Eskom in order to reduce the risk of fire.
Agricultural potential	• Potential impacts are anticipated where irrigation lands are part of centre pivot operations. In these areas, special arrangements for the siting of towers will be required to be made during final negotiations. • Potential impacts associated with the proposed Transmission line in areas where commercial agriculture has changed to game farming include mainly those associated with aesthetics. • No impacts are anticipated where the new Transmission line crosses grazing land, as grazing remains viable under the lines. • The construction of a new Transmission line across citrus farms could result in the limitation of the height of trees planted for windbreaking purposes, should these be in the path of the proposed line. This will impact significantly on the productivity of the citrus farm and, therefore, its overall viability. The possible avoidance of such farms can actively be addressed during negotiations for final line placement.

Table 1 cont.: Summary of potential impacts associated with the construction of a new 400 kV Transmission line, applicable to the entire study area

Issue	Potential Impact and Mitigation Measures
Avifauna	• The primary impacts associated with the construction and operation of a Transmission line include habitat destruction or alteration, and death due to electrocution or collisions. • With the implementation of Eskom's Standard Practices in terms of vegetation clearance in sensitive areas, impacts in terms of habitat alteration will be small-scale, and will have no significant influence on sensitive bird populations. • Eskom have identified bird collisions as a major impact on both the environment and the operation and reliability of Transmission lines. Therefore, appropriate mitigation measures have been developed in the form of different types of bird diverters. Investigations regarding the effectiveness of these diverters have indicated an 80% reduction in bird collisions with lines fitted with these diverters.
Large mammals	• Large mammals have been reported to make use of cleared areas as walkways. Therefore, the clearance of a servitude and the construction of access roads will open up the habitat, and this is likely to attract certain species to these areas. This could result in the over-utilisation of the vegetation in these localised areas, and the associated vegetation degradation and soil erosion, thus reducing the available food source in the long-term. This impact is anticipated to be localised, of a long-term nature and of low significance, provided that appropriate mitigation measures are implemented (e.g. the limitation of vegetation clearance within sensitive areas).
Small mammals	• Monkeys have been reported to scale towers, and in the event of them inadvertently touching a conductor, have been electrocuted. The use of climb guards a short distance from the ground have been included within tower design in order to prevent animals and humans from scaling the tower, thus effectively minimising the incidences of electrocution. • The construction of the proposed Transmission line could result in limited opening-up of the vegetal cover during the construction phase. The opening up of existing vegetated areas, thereby creating corridors along which animals can move, may result in increased predation levels on small mammals (and other fauna) along these corridors. The limitation of the disturbance of vegetation cover within sensitive areas will ameliorate this impact.
Reptiles and invertebrates	• Excessive habitat destruction during construction could reduce the amount of habitat available. This impact is anticipated to be localised, of a long-term nature and of low significance, provided that appropriate mitigation measures are implemented (e.g. the limitation of vegetation clearance within sensitive areas).
Archaeological sites	• A positive impact is that sites previously not known of or identified will be discovered, primarily through excavation activities associated with the construction phase. • As cultural heritage resources are non-renewable, and economic values cannot be placed on these resources, should damage or loss of these resources occur, potential destruction of the sites is considered as a significant negative impact. Care should, therefore, be taken such that minimal damage occurs to these sites during construction activities. No historical artefacts should be removed by unqualified personnel at any time.

Table 1 cont.: Summary of potential impacts associated with the construction of a new 400 kV Transmission line, applicable to the entire study area

Issue	Potential Impact and Mitigation Measures
Palaeontological sites	• A positive impact is that sites previously not known of or identified will be discovered, primarily through excavation activities associated with construction activities. • It is possible that fossil remains uncovered at a palaeontological site may be lost or rendered unrecognisable due to excessive disturbance. This is considered as a negative impact associated with construction activities. Uncovered fossil remains should only be removed by qualified personnel.
Safety and security	• Residents in the farming areas of the study area perceive cleared servitude lines as access routes used for theft and other crimes. Other concerns expressed relate to the construction phase of the establishment of the Transmission line and the introduction of an "unknown" labour force into the area. With increasing incidences of farm attacks country-wide, this concern is heightened.
Health and safety	• Concerns were raised by I&APs with regards to potential health impacts associated with electric and magnetic fields (EMFs) from Transmission lines. Studies have shown that EMFs reduce in magnitude with increasing distance from the source. EMFs recorded are highest at the centre of the Transmission line servitude and rapidly decrease in intensity from this centre line, such that the impact of EMFs from a Transmission line is negligible beyond the servitude. In order to ensure that health impacts are minimised, structures are not permitted to be constructed underneath the conductors of a Transmission line (i.e. within the servitude). In addition, this fulfils safety requirements, ensuring that no person is able to have physical contact with a line conductor (e.g. by standing on the roof of a building under the conductors).
Electricity supply	• The construction of a new 400 kV Transmission line between the Poseidon and Grassridge Substations will ensure a firm and reliable supply to the Greater Port Elizabeth area, and ensure that Eskom are able to meet the growing power supply demand in this area. • The area north of the Zuurberg mountains (Middleton and Golden Valley) is currently supplied with electricity from the Somerset East Municipality. Most farmers consulted in the area commented on the unreliability and cost of this source of power. A constant supply of electricity is especially important to Ostrich farmers in the area for the incubation of ostrich eggs. Farmers see this project as an opportunity to gain a more reliable and cost effective form of power, and therefore expressed their support for the project.

Table 2: Summary of potential impacts associated with the establishment of a new 400 kV Transmission line within corridor 1 and 2

Identified Issue	**Corridor 1:** **Potential Impact and Mitigation Measures**	**Corridor 2:** **Potential Impact and Mitigation Measures**
Servitude rights	• Use of this route would require the acquisition of a new servitude (55 m in width) for a total of 15 km (for the portions of line closest to both the substations). • The approximately 85 km of existing registered servitude would be required to be widened by a further 29 m in order to accommodate the 400 kV CRS tower design. • This route traverses the existing AENP across its northern arm (for a distance of approximately 5 km), as well as the area earmarked for the GANP development (for a total distance of approximately 20 km). Unique solutions in terms of tower design will be required to accommodate a Transmission line within the restricted existing servitude through the National Park, as per the limitations imposed by the National Parks Act (No 57 of 1976).	• This route utilises approximately 50% of the alignment proposed for corridor 1, extending along Eskom's existing servitude between Poseidon Substation and the northern boundary of the area earmarked for the GANP development. This would, therefore, also require a further 29 m parallel to the registered servitude. • The southern half of this corridor would require Eskom to negotiate a new servitude (55 m in width) for the entire distance beyond the juncture with the northern boundary of the proposed GANP. • The corridor will potentially traverse the southern portion of the AENP (for a distance of approximately 5 km), as well as the proposed GANP development. This will require the submission of an application to Parliament for the de-proclamation of those portions of the AENP (and the proposed GANP) through which the line would pass for the issuing of Eskom with servitude rights. This application requires a 2/3 majority in Parliament to be passed.
Access/service roads	• As this corridor follows existing Transmission line infrastructure, use will be made of existing access/service roads along the length of this corridor. This will reduce the potential for additional disturbance of vegetation and farming activities, and will reduce the potential disturbance on terrestrial fauna.	• Establishment of a Transmission line within this corridor will require the construction of new access/service roads where this corridor does not follow existing Transmission line infrastructure (i.e. from the northern boundary of the proposed GANP to the Grassridge Substation). This will result in disturbance of vegetation and farming activities. • Eskom will not be permitted to construct access/service roads off of a National Road (i.e. the N10 and N2), as informal access is not permitted off these routes. • Where required, construction within sensitive/inaccessible areas will be undertaken by helicopter, with foundations being excavated by hand. • Where required, maintenance will be undertaken by helicopter.

Table 2 cont.: Summary of potential impacts associated with the establishment of a new 400 kV Transmission line within corridor 1 and 2

Identified Issue	**Corridor 1:** **Potential Impact and Mitigation Measures**	**Corridor 2:** **Potential Impact and Mitigation Measures**
Visual impacts	• The potential visual impact of the proposed Transmission line is not anticipated to significantly compound the existing visual impact associated with the existing 220 kV and 400 kV Transmission lines which pass through the study area. In addition, it is anticipated that, where feasible, the proposed line would be constructed using CRS towers, which are smaller and less steel-intensive than the existing towers associated with the existing Transmission lines, reducing localised visual impacts. • For the section of the route through the AENP it will be required that the Transmission line would be constructed to fit within the existing servitude, and therefore the towers would be required to be constructed in line with the existing towers, thereby reducing the number of individual towers visible when viewing the line from a distance. • The visual impacts associated with this proposed Transmission line within this corridor is expected to be of low significance.	• The potential visual impact of the proposed Transmission line is not anticipated to significantly compound the existing visual impacts where this route follows the existing 220 kV and 400 kV Transmission lines (the northern potion). • Where the corridor follows the eastern boundary of the proposed GANP along the N10 and N2, the impacts are anticipated to be moderate to high. Despite the road developments being an existing linear disturbance, the visual impact from a distance associated with a Transmission line is elevated due to the heights of towers above ground level. • This corridor is proposed to extend along the eastern boundary of the proposed GANP (following the N10), and along the southern boundary of the AENP (following the N2). The existing 220 kV and 400 kV Transmission lines extend across and skirt the eastern section of the AENP (and proposed GANP). The construction of the proposed new Transmission line within this corridor would effectively result in the AENP being visually impacted on to the west, east and south of the Park, and effectively being "boxed-in" by Transmission line developments. This is anticipated to be of high significance to the AENP (and proposed GANP) developments in the long-term. • This corridor will also impact negatively on other tourist developments on the coastal plain (e.g. at Sundays River0.

Table 2 cont.: Summary of potential impacts associated with the establishment of a new 400 kV Transmission line within corridor 1 and 2

Identified Issue	**Corridor 1:** **Potential Impact and Mitigation Measures**	**Corridor 2:** **Potential Impact and Mitigation Measures**
Potential impacts on the AENP (and proposed GANP)	• *Visual impacts:* The existing 220 kV and 400 kV Transmission lines which pass through the northern arm of the AENP have an existing impact on views within the Park. As discussed above, it is anticipated that the construction of a new Transmission line along this corridor would not further significantly impact on the existing visual intrusiveness associated with the existing Transmission lines which pass through the area. • *Long-term planning:* The use of double-circuit tower structures within the portion of this corridor which traverses the proposed GANP could be investigated by Eskom as an option to accommodate potential long-term planning difficulties within this area. These towers, however, require a servitude width of approximately 47 m in order to support their height (approximately 50 m). Therefore, in order to accommodate these towers through the AENP (and proposed GANP), it would be required that the existing 220 kV Transmission line servitude be recycled such that a 47 m wide servitude would be available. Potential impacts associated with this alternative include: * visual impacts associated with a 50 m tower as opposed to a 30 m tower, * impacts on the surrounding environment as a result of the dismantling of the existing 220 kV line, and * economic implications associated with the construction costs of the double-circuit towers and the dismantling of the existing 220 kV line.	• Due to the presence of the existing 220 kV and 400 kV Transmission lines on the western extremity of the AENP, the construction of the proposed new Transmission line to the eastern side of the AENP would result in the Park being visually impacted on to the west, east and south, and effectively being surrounded, or "boxed-in" by Transmission line developments. • The long-term visual intrusion is of greatest importance for this corridor. As the proposed GANP's tourist-intensive areas expand towards the eastern extremity, so the critical views will be more greatly impacted on by the Transmission line structure. In addition, the establishment of a Transmission line within this corridor would impact on tourist views while entering the proposed GANP through the planned new main entrance (off the N10 to the east of the existing AENP).

Table 2 cont.: Summary of potential impacts associated with the establishment of a new 400 kV Transmission line within corridor 1 and 2

Identified Issue	**Corridor 1:** **Potential Impact and Mitigation Measures**	**Corridor 2:** **Potential Impact and Mitigation Measures**
Proximity of residences/ residential areas	• This corridor passes in close proximity to Middelton, Kommadagga, Nomathanisanqa and Addo. The presence of the existing Transmission lines close to these towns has an existing impact within these areas, particularly in terms of visual intrusiveness and impacts on critical views. The construction of a new Transmission line along this corridor can, therefore, not be considered as a new visual intrusion, but may increase the magnitude of the impact on a local scale.	• This corridor passes in close proximity to the towns of Middelton, Kommadagga, Paterson, Colchester, Sundays River and Cannonvale. The towns within the southern section of this corridor, including Paterson, are not currently impacted on by Transmission line infrastructure, and therefore the construction of a new Transmission line would impact negatively on the character and quality of the existing view within these areas. This is considered to be of particular significance in those centres (such as Colchester and Sundays River), which are within the coastal zone and have tourism and recreational value.

Conclusions and Recommendations

An important factor illustrated within the report is that the study area is an area previously disturbed by Transmission line infrastructure. Two existing Transmission lines (i.e. a 220 kV and a 400 kV line), which currently transmit power between the Poseidon and Grassridge Substations, form a corridor along the western boundary of the study area. Eskom has a vacant registered servitude which extends for 85% of the distance between the two substations, and lies immediately to the west of the existing 220 kV Poseidon-Grassridge Transmission line.

The northern portion of both proposed corridors investigated in this study follow Eskom's vacant registered servitude from the Poseidon Substation to the northern boundary of the proposed GANP. Keeping within the existing Transmission line corridor (and thereby consolidating this infrastructure) has been suggested as being most favourable for this portion of the line. The primary potential impacts for this northern portion of the route relate to the division of agricultural land and impacts on the visual quality of the area. In addition, the increasing width of the electricity generating corridor may be of concern where the viability of crop production on some farm portions is being threatened. These potential impacts can actively be addressed and solutions identified during negotiations for final line placement.

The southern portion of the proposed study area is characterised by the AENP. It is, largely in an effort to minimise potential impacts on this conservation-worthy area, that two corridor alignment alternatives were investigated.

The primary results from the specialist studies undertaken and the public participation process point to the use of corridor 1 as being the most favourable alternative for this area. This recommendation is supported by the primary findings of the study, which include, *inter alia*, the following:

- This corridor forms part of a "consolidated electricity transfer" scheme for this area. As visual impact plays an important role in defining an appropriate Transmission line corridor, the minimisation of this impact is a key consideration.
- An existing registered vacant servitude exists for approximately 85 % of the length of the line, which provides Eskom with an opportunity to exercise their rights to use the servitude for the establishment of new infrastructure.

- No feasible route exists between the Poseidon and Grassridge substations which could be followed in order to avoid traversing the AENP (and proposed GANP). Therefore, with the provisions of the National Parks Act in respect to the supply of servitudes, Eskom's options for traversing Schedule 1 National Parks land, or other areas earmarked for SANP's development, are limited. Corridor 1 has a provision which allows Eskom rightful access across the Park.
- With the existence of two Transmission lines to the western extremity of the AENP, it is assumed that the planning of all new SANP developments take the existence of these, together with their associated visual impact, into account. With the recent advent of the planning phase of the proposed GANP, the location of the existing and the new Transmission line will be required to form part of the greater design for the future Park.
- The visual assessment for this study considers planned SANP developments, as well as other planned tourist-intensive activities (e.g. small-scale game farms) in the study area as far as possible. Yet, without firm decisions having been made with regards to land-use for the entire study area, "best-guess" scenarios were considered at some junctures. In each event, future planning would take existing Transmission line infrastructure into consideration and, therefore, a new Transmission line introduced on the same alignment as existing lines would have a reduced overall impact.
- As a current impact exists from the existing Transmission lines on the western extremity of the AENP, corridor 2 compounds this visual quality of the southern portion of the study area resulting in a "boxing-in" effect on the GANP. Visual impact is regarded as a primary concern with the erection of Transmission line infrastructure, particularly in areas with sensitive views. The establishment of the Transmission line within corridor 1 does not significantly compound the existing visual impact.
- Corridor 1 is approximately 30 km shorter in length with fewer bends. This route presents fewer technical problems which are typically encountered with a high number of bend points, and in addition significantly reduces the costs associated with construction of the line.
- Only a short portion of corridor 1 lies within the 50 km coastal zone, which provides additional technical challenges and influences the long-term reliability of supply of the power. Corridor 2 follows a route parallel to the coast for some distance within this 50 km coastal zone, which is undesirable from a technical viability perspective.
- The use of corridor 1 presents an opportunity for existing access and service roads to be utilised during both the construction and maintenance phases of the project for the length of the line.

The results of the study, therefore, highlight the potential benefits in consolidating linear Transmission line infrastructure within this area by utilising corridor 1. Potential negative impacts have also been highlighted, and would require mitigation and negotiation with landowners in the final planning phase of the project.