

Impact	Grid Option 1		Grid Option 2	
	Pre-mitigation	Post-mitigation	Pre-mitigation	Post-mitigation
<b>CONSTRUCTION</b>				
<b>Impacts to Biophysical Systems</b>				
<b>Aquatic / Freshwater</b>				
Loss of aquatic species of special concern during the construction or decommissioning of the grid options	Low	Low	Low	Low
Damage or loss of riparian systems, ephemeral watercourses and wetland systems in the construction or decommissioning of the grid options	Medium	Low	Medium	Low
Potential impact on localised surface water quality (construction materials and fuel storage facilities) during the construction and decommissioning phases	Medium	Low	Medium	Low
<b>Terrestrial Ecology</b>				
Vegetation - Permanent or temporary loss of indigenous vegetation cover because of site clearing. Site clearing before construction will result in the blanket clearing of vegetation within the affected footprint.	Low	Low	Low	Low
Flora Species - Loss of flora species of special concern during pre-construction site clearing activities. Numerous species of special concern are potentially present within the affected area, which could be destroyed during site preparation	Low	Low	Low	Low
Alien Invasive Species - Susceptibility of post construction disturbed areas to invasion by exotic and alien invasive species and removal of exotic and alien invasive species during construction. Post construction disturbed areas having no vegetation cover are often susceptible to invasion by weedy and alien species, which can not only become invasive but also prevent natural flora from becoming established.	Low	Low	Low	Low
Erosion - Susceptibility of some areas to erosion because of construction related disturbances. Removal of vegetation cover and soil disturbance may result in some areas being susceptible to soil erosion after completion of the activity.	Low	Low	Low	Low
Ecological Processes - Disturbances to ecological processes. Activity may result in disturbances to ecological processes.	Low	Low	Low	Low
Aquatic and Riparian processes - Aquatic and Riparian processes. Diversion and increased velocity of surface water flows – Changes to the hydrological regime and increased potential for erosion. Impact of changes to water quality. Loss of riparian vegetation / aquatic habitat. Loss of species of special concern.	Low	Low	Low	Low
Faunal Habitat - Loss of Faunal Habitat: Activity will result in the loss of habitat for faunal species.	Low	Low	Low	Low
Faunal Processes - Disruptions to faunal processes Including barriers to movement and gene dispersal.	Low	Low	Low	Low
Faunal Species - Loss of faunal SSC due to construction activities: Activities associated with bush clearing and ploughing, killing of perceived dangerous fauna, may lead to increased mortalities among faunal species.	Low	Low	Low	Low
<b>Agricultural – compliance statement – none identified</b>				
<b>Avifaunal</b>				

Impact	Grid Option 1		Grid Option 2	
	Pre-mitigation	Post-mitigation	Pre-mitigation	Post-mitigation
Habitat loss (including foraging and breeding) and fragmentation due to displacement (avoidance of disturbance) as a result of infrastructure installation (Grid related infrastructure such as powerlines and pylons) and associated dust effects. Habitat loss has the tendency to not only destroy existing habitat but also displace bird species from natural habitat. This specifically has a greater impact on bird species restricted to a specific habitat and its requirements.	Medium	Low	Medium	Low
The destruction or disturbance of bird roosts during the construction phase	Low	Low	Low	Low
Disturbance (including of roosting and nesting SCC) due to noise such as, machinery movements and maintenance operations during the construction phase the proposed Grid Connection Infrastructure causing loss of offspring for a generation.	Low	Low	Low	Low
<b>Geotech</b>				
Ground disturbance during access road construction, foundation earthworks, platform earthworks	Low	Low	Low	Low
Increased erosion due to vegetation clearing, alteration of natural drainage	Low	Low	Low	Low
<b>Impacts to Socio-Economic Component</b>				
<b>Social</b>				
Noise Impact - Noise at the site and the construction vehicles ferrying the panels and building materials	Low	Low	Low	Low
Impacts on biodiversity - Habitat loss to make way for large-scale solar facilities.	Medium	Low	Medium	Low
Loss of agricultural land - Is a function of the size of the area of land that is impacted and the production potential, of that impacted land.	Medium	Low	Medium	Low
Cultural heritage impacts - If the solar PV facility is located near sacred areas, cultural practices will be affected. Recent archaeological field assessment conducted for other solar PV facilities located approximately 10km from the proposed development area identified some cultural remains but with varied value and preservation. It is likely that similar heritage resources may be present within this development area. (CTS Heritage, 2022).	Medium	Low	Medium	Low
Graves - Identification of human remains indicating a former burial place or the simple existence of a known cemetery during construction.	Medium	Low	Medium	Low
Road and traffic hazards - Heavy construction vehicles on poor roads will cause potholes to form, and accidents will rise.	Medium	Low	Medium	Low
Social impacts: job creation - Creation of jobs and local economic opportunities	Medium	Low	Medium	Low
<b>Heritage</b>				

Impact	Grid Option 1		Grid Option 2	
	Pre-mitigation	Post-mitigation	Pre-mitigation	Post-mitigation
Impacts to archaeological heritage resources - Construction activities that take place near to archaeological resources may result in their destruction.	Medium	Low	High	Low
Impacts to palaeontological resources - Construction activities that take place near to palaeontological resources may result in their destruction.	Medium	Low	Medium	Low
Impacts to the cultural landscape - Construction activities that take place near to cultural landscape elements may result in their destruction.	Medium	Low	Medium	Low
<b>Visual</b>				
Altered Sense of Place and Visual Intrusion caused by Construction Activities	Medium	Low	Medium	Low
<b>OPERATIONAL</b>				
<b>Impacts to Biophysical Systems</b>				
<b>Aquatic / Freshwater</b>				
Impact on aquatic systems through the possible increase in surface water runoff on form and function during the operational phase from any of the access tracks, although none should cross the delineated systems	Medium	Low	Medium	Low
<b>Terrestrial Ecology</b>				
Alien Invasive Species - Susceptibility of post construction disturbed areas to invasion by exotic and alien invasive species and removal of exotic and alien invasive species during construction. Post construction disturbed areas having no vegetation cover are often susceptible to invasion by weedy and alien species, which can not only become invasive but also prevent natural flora from becoming established.	Low	Low	Low	Low
Erosion - Susceptibility of some areas to erosion because of construction related disturbances. Removal of vegetation cover and soil disturbance may result in some areas being susceptible to soil erosion after completion of the activity.	Low	Low	Low	Low
Ecological Processes - Disturbances to ecological processes. Activity may result in disturbances to ecological processes.	Low	Low	Low	Low
Aquatic and Riparian processes - Aquatic and Riparian processes. Diversion and increased velocity of surface water flows – Changes to the hydrological regime and increased potential for erosion. Impact of changes to water quality. Loss of riparian vegetation / aquatic habitat. Loss of species of special concern.	Low	Low	Low	Low
Faunal Processes - Disruptions to faunal processes Including barriers to movement and gene dispersal.	Low	Low	Low	Low
<b>Agricultural - compliance statement – none identified</b>				
<b>Avifauna</b>				
Bird mortalities during the operational phase due to, collisions with infrastructure.	Medium	Low	Medium	Low
Disruption of bird migratory pathways during the operational phase	Medium	Low	Medium	Low
The attraction of some novel bird species due to the development of a solar farm with associated infrastructure such as perches, nest and shade opportunities may cause both damage to the infrastructure	Low	Low	Low	Low

	Grid Option 1		Grid Option 2	
Impact	Pre-mitigation	Post-mitigation	Pre-mitigation	Post-mitigation
through acidic defecation by certain species but also draw birds closer to infrastructure and cause significant direct mortality risks.				
<b>Geotech</b>				
Soil Erosion - Increased erosion due to alteration of natural drainage	Low	Low	Low	Low
<b>Impacts to Socio-Economic Component</b>				
<b>Social</b>				
Impacts on water resources - There is no need for water for electricity generation.	Medium	Low	Medium	Low
Cultural Heritage - Location of operations near cultural sites may disrupt cultural practices.	Medium	Low	Medium	Low
Job creation for construction workers. - Increased employment providing skills development and local economic empowerment	Medium	Medium	Medium	Medium
<b>Heritage</b>				
Operational activities that take place near to archaeological resources may result in their destruction	Medium	Low	Medium	Low
Operational activities that take place near to palaeontological resources may result in their destruction	Medium	Low	Medium	Low
Operational activities that take place near to cultural landscape elements may result in their destruction	Medium	Low	Medium	Low
<b>Visual</b>				
Altered Sense of Place and Visual Intrusion caused by the Powerline	Medium	Low	Medium	Low
Altered Visual Quality caused by Light Pollution from the Substation at Night	Medium	Low	Medium	Low
<b>DECOMMISSIONING</b>				
<b>Impacts to Biophysical Systems</b>				
<b>Aquatic / Freshwater</b>				
Loss of aquatic species of special concern during the construction or decommissioning of the grid options	Low	Low	Low	Low
Damage or loss of riparian systems, ephemeral watercourses and wetland systems in the construction or decommissioning of the grid options	Medium	Low	Medium	Low
Potential impact on localised surface water quality (construction materials and fuel storage facilities) during the construction and decommissioning phases	Medium	Low	Medium	Low
<b>Terrestrial Ecology</b>				
Vegetation - Permanent or temporary loss of indigenous vegetation cover because of site clearing. Site clearing before construction will result in the blanket clearing of vegetation within the affected footprint.	Low	Low	Low	Low
Alien Invasive Species - Susceptibility of post construction disturbed areas to invasion by exotic and alien invasive species and removal of exotic and alien invasive species during construction. Post construction	Low	Low	Low	Low

Impact	Grid Option 1		Grid Option 2	
	Pre-mitigation	Post-mitigation	Pre-mitigation	Post-mitigation
disturbed areas having no vegetation cover are often susceptible to invasion by weedy and alien species, which can not only become invasive but also prevent natural flora from becoming established				
Erosion - Susceptibility of some areas to erosion because of construction related disturbances. Removal of vegetation cover and soil disturbance may result in some areas being susceptible to soil erosion after completion of the activity.	Low	Low	Low	Low
Ecological Processes - Disturbances to ecological processes. Activity may result in disturbances to ecological processes.	Low	Low	Low	Low
Aquatic and Riparian processes - Aquatic and Riparian processes. Diversion and increased velocity of surface water flows – Changes to the hydrological regime and increased potential for erosion. Impact of changes to water quality. Loss of riparian vegetation / aquatic habitat. Loss of species of special concern.	Low	Low	Low	Low
Faunal Habitat - Loss of Faunal Habitat: Activity will result in the loss of habitat for faunal species.	Low	Low	Low	Low
Faunal Processes - Disruptions to faunal processes Including barriers to movement and gene dispersal.	Low	Low	Low	Low
<b>Agricultural – none identified</b>				
<b>Avifaunal</b>				
Disruption of bird migratory pathways during the decommissioning phase of the grid.	Medium	Low	Medium	Low
<b>Geotech</b>				
Ground disturbance during access road construction, foundation earthworks, platform earthworks	Low	Low	Low	Low
Increased erosion due to vegetation clearing, alteration of natural drainage	Low	Low	Low	Low
<b>Impacts to Socio-Economic Component</b>				
<b>Social</b>				
The aesthetic value of the land is lost - Land scarification will occur during the decommissioning of the solar plants.	Medium	Low	Medium	Low
Socio-economic impacts - Job losses	High	Medium	High	Medium
<b>Heritage</b>				
Decommissioning activities that take place near to Archaeological resources may result in their destruction	Medium	Low	Medium	Low
Decommissioning activities that take place near to Palaeontological resources may result in their destruction	Medium	Low	Medium	Low
Decommissioning activities that take place near to cultural landscape elements may result in their destruction	Medium	Low	Medium	Low
<b>Visual</b>				
Altered Sense of Place caused by the Decommissioning Activities	Medium	Low	Medium	Low
<b>CUMULATIVE</b>				
<b>Impacts to Biophysical Systems</b>				
<b>Aquatic / Freshwater</b>				
Cumulative Impact of various proposed projects and associated grid lines on the natural environment	Low	Low	Low	Low

Impact	Grid Option 1		Grid Option 2	
	Pre-mitigation	Post-mitigation	Pre-mitigation	Post-mitigation
<b>Terrestrial Ecology</b>				
Vegetation - Permanent or temporary loss of indigenous vegetation cover because of site clearing. Site clearing before construction will result in the blanket clearing of vegetation within the affected footprint.	Low	Low	Low	Low
Flora Species - Loss of flora species of special concern during pre-construction site clearing activities. Numerous species of special concern are potentially present within the affected area, which could be destroyed during site preparation.	Low	Low	Low	Low
Alien Invasive Species - Susceptibility of post construction disturbed areas to invasion by exotic and alien invasive species and removal of exotic and alien invasive species during construction. Post construction disturbed areas having no vegetation cover are often susceptible to invasion by weedy and alien species, which can not only become invasive but also prevent natural flora from becoming established.	Low	Low	Low	Low
Erosion - Susceptibility of some areas to erosion because of construction related disturbances. Removal of vegetation cover and soil disturbance may result in some areas being susceptible to soil erosion after completion of the activity.	Low	Low	Low	Low
Ecological Processes - Disturbances to ecological processes. Activity may result in disturbances to ecological processes.	Low	Low	Low	Low
Aquatic and Riparian processes - Aquatic and Riparian processes. Diversion and increased velocity of surface water flows – Changes to the hydrological regime and increased potential for erosion. Impact of changes to water quality. Loss of riparian vegetation / aquatic habitat. Loss of species of special concern.	Low	Low	Low	Low
Faunal Habitat - Loss of Faunal Habitat: Activity will result in the loss of habitat for faunal species.	Low	Low	Low	Low
Faunal Processes - Disruptions to faunal processes including barriers to movement and gene dispersal.	Low	Low	Low	Low
Faunal Species - Loss of faunal SSC due to construction activities: Activities associated with bush clearing and ploughing, killing of perceived dangerous fauna, may lead to increased mortalities among faunal species.	Low	Low	Low	Low
<b>Agricultural – compliance statement - none identified</b>				
<b>Avifauna</b>				
Increased collision related mortalities due to increased powerlines	High	Medium	High	Medium
<b>Geotech – none identified</b>				
<b>Impacts to Socio-Economic Component</b>				
<b>Social</b>				
Visual Impacts - There are several substations and powerlines in the area, already affecting the visual quality and sense of place in this modified rural landscape.	High	Low	High	Low
<b>Heritage</b>				
Cumulative destruction of significant archaeological heritage	Medium	Low	Medium	Low

	Grid Option 1		Grid Option 2	
Impact	Pre-mitigation	Post-mitigation	Pre-mitigation	Post-mitigation
Cumulative destruction of significant palaeontological heritage	Medium	Low	Medium	Low
Cumulative impact to the cultural landscape	Medium	Low	Medium	Low
Visual				
Altered Sense of Place caused by the Grid Connection	Medium	Low	Medium	Low