Proposal Content Document

Table 1: General proposal content description

Proposal title	Mt Keith Power Station Capacity Expansion Project
Proponent name	TEC Desert Pty Ltd & TEC Desert No.2 Pty Ltd in partnership as Southern Cross Energy
Short description	The Proposal will be a component of TransAlta's existing Southern Cross Energy North (SCEN) network supplying power to BHP Nickel West and potential third-party operators. The Proposal is to construct and operate up to 150MW of gas reciprocating engines to be used in preference to the use of legacy power generation equipment in the Northern Goldfields region of Western Australia. The Proposal will be located on brownfields sites within NiW's existing Mt Keith operations.

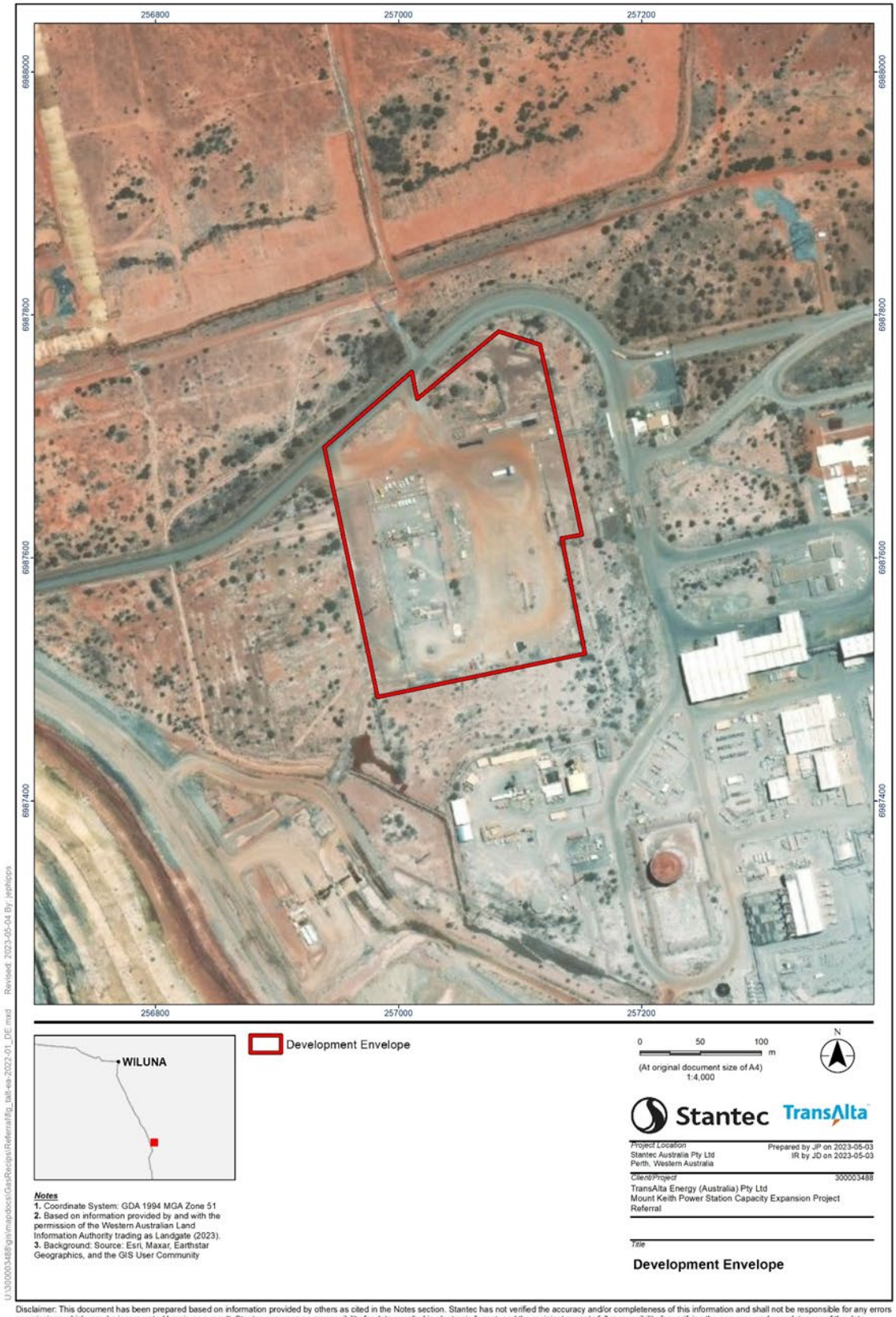
Table 2: Proposal content elements

Proposal element	Location / description	Maximum extent, capacity or range
Physical elements		
Power station elements including, but not limited to: • Gas-fired reciprocating engines • Exhaust stacks • Transformers • Blackstart generator • Auxiliary transformers • Radiators • Gas pipeline and infrastructure • Cabling • Lube oil centrifuge Supporting infrastructure including, but not limited to: • Oil storage tanks • Buildings • Roads	Within the Mt Keith Mine operations area. See Figure 1 Project development envelope and Figure 2 Project regional location below	No vegetation clearing is required for the development of the Proposal. The new gas reciprocating engines and associated infrastructure will be constructed on an already disturbed NiW laydown yard within the NMK mine site area.

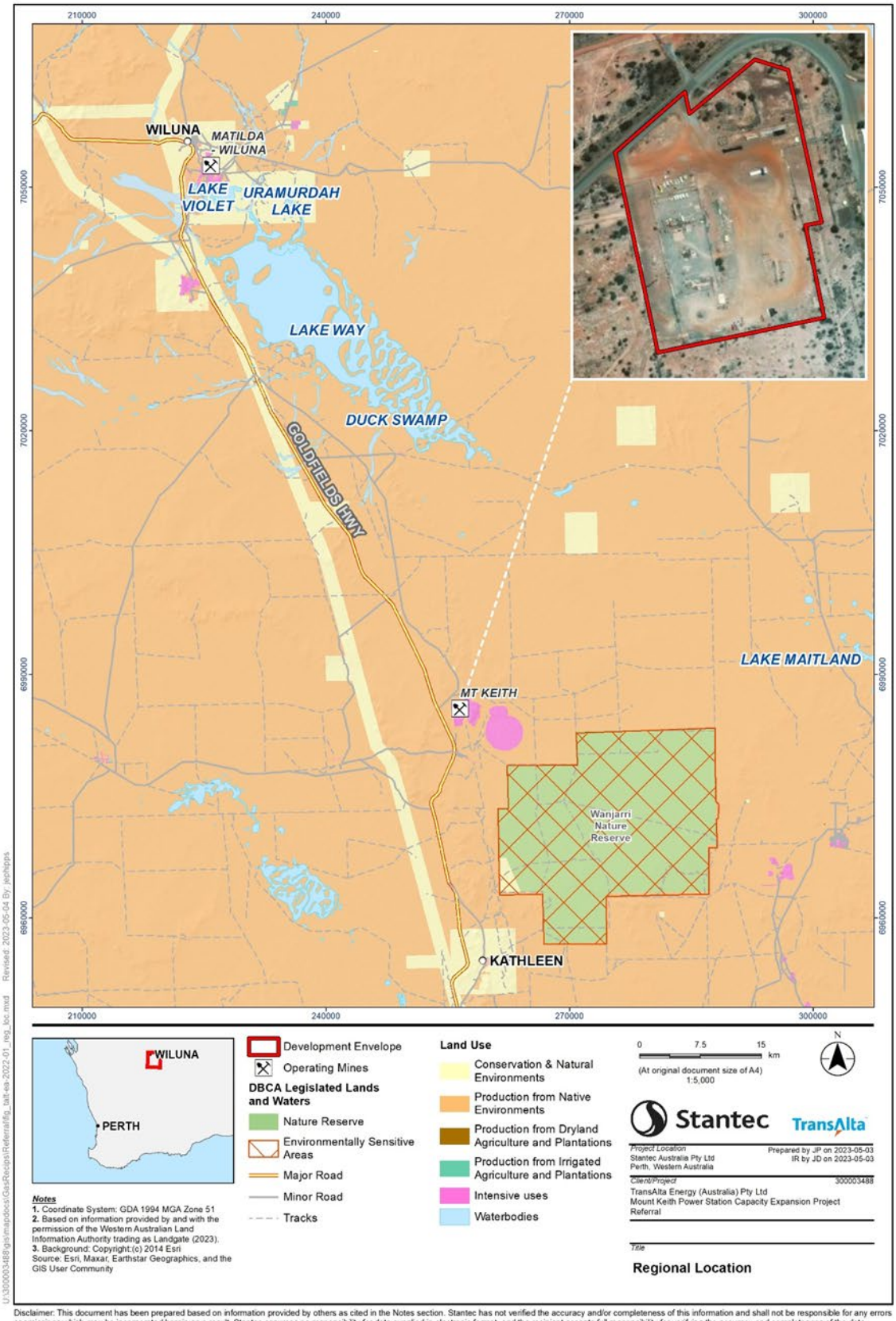
• Fences • Oily water separator • Sewage pumping station Bunded area for storage and handling of chemicals		
Construction elements		
Not applicable		
Operational elements		
Gas-fired Power Station	Within Figure 1 Project development envelope	Up to 150MW of gas reciprocating engines to be built in stages
Key infrastructure	Within Figure 1 Project development envelope	Exhaust stacks, at a suitable height above ground level to avoid health impacts. Each stack will be fitted with sampling ports in accordance with Australia Standard (AS) 4323.1
Supporting infrastructure	Within Figure 1 Project development envelope	• Diesel Blackstart Generator with day tank self-bunded in accordance with Australian Standards. • Transformer(s) • Maintenance oil tank(s) • Oil make up tank(s) • Roads with necessary culverts • Used oil tank(s) • Waste oil tank(s) • Oily water separator(s) (OWS) • OWS waste oil collection tank(s) • Automated sewage pumping station • Gas yard, associated equipment and pipeline • Bunded areas for storage and handling of oils, lubricants and chemicals • Synchronous condenser operation • Ancillary and other required infrastructure
Water supply		TransAlta will utilise the water supply from NiW's NMK and surrounding areas that is sourced from adjacent borefield areas developed in caprock and paleochannel units to meet process water requirements at NMK. No groundwater abstraction is required in relation to this Proposal. Water for dust

		suppressions will be supplied from existing sources.
Proposal elements with greenhouse gas emissions		
Construction elements:		
Scope 1	31,670 tCO2-e in the proposal's lifetime with 13,373 tCO2-e in 2024, 6,442 tCO2-e in 2025 and 11,855 tCO2-e in 2027	
Scope 2	None – as an off-grid network all electricity is generated on-site and accounted for in Scope 1	
Scope 3	Total GHG emissions: 19,663 tCO2-e	
Operation elements:		
Scope 1	GHG emissions of the SCEN network are expected to be up to 461,455 tCO2-e per annum, 164,380 tCO2-e of which is from the additional gas reciprocating engines under the current load forecast (see section 4). Emissions from the gas reciprocating engines will increase to displace legacy generation on the SCEN network within decarbonisation targets outlined in Appendix B. Total GHG emissions for the Proposal are 12,111,438 tCO2-e¬ based on an operational life to 2050.	
Scope 2	None – as an off-grid network all electricity is generated on-site and accounted for in Scope 1	
Scope 3	Total GHG emissions: 197,394 tCO2-e	
Rehabilitation		
Rehabilitation will be undertaken in accordance with the Mining Proposal and Mine Closure Plan		
Commissioning		
The estimated forecast key milestones for construction and commissioning are: Construction: H1 2024 Commence commissioning: H2 2025		
Decommissioning		
Decommissioning will be undertaken in accordance with the upcoming Small Operations Mining Proposal – Mine Closure Plan.		
Other elements which affect extent of effects on the environment		
Proposal time	Maximum project life	25 years
	Construction phase	18-24 months

	Operations phase	Up to 365 operational days per year over 25 years for up to 24 hours a day at varying output as required by NiW to meet load requirements
	Decommissioning phase	In accordance with the approved Mine Closure Plan.



Project development envelope



Project regional location