Proposal Content Document

Table 1: General proposal content description

Proposal title	**Northern Terminal to Neerabup Terminal 330kV Transmission Line.**
Proponent name	Electricity Networks Corporation trading as Western Power (Western Power) (ABN 18 540 492 861)
Short description	The Northern Terminal to Neerabup Terminal 330kV Transmission Line proposal (the Proposal) is located approximately 13 km north of Perth in the City of Swan and City of Wanneroo. The Proposal is for the construction of a new 330kV dual circuit transmission line between Northern Terminal in Malaga and Neerabup Terminal in Pinjar, a length of approximately 29 km. Additionally, the Proposal includes the expansion of the two existing Western Power substations, Northern Terminal and Neerabup Terminal. The purpose of the Proposal is to reinforce the North Region transmission network to remove constraints on existing connected generation, provide additional capacity to connect large-scale renewable energy generation and meet future demand. The proposed transmission line will be in parallel to the existing 330kV transmission line between Northern Terminal and Neerabup Terminal.

Table 2: Proposal content elements

Proposal element	Location / description	Maximum extent, capacity or range
Physical elements		
The transmission line comprises the following physical components: - Transmission infrastructure. For the purposes of this referral, 74 steel lattice towers are assumed. - 330kV conductors (dual circuit) - Optical Ground Wire (OPGW) and underground fibre - Permanent maintenance access track - Vegetation clearance zone	Within Development Envelope. Refer to Attachment 1 indicative project layout.	Total indicative Disturbance Footprint for the Proposal is 100.5 hectares (ha) within a 217.24 ha Development Envelope. The Disturbance Footprint is comprised of: • 65.35 ha of native vegetation to be cleared • 32.37 ha of non-native vegetation to be cleared • 11.15 ha of already cleared/previously disturbed areas The following overarching construction elements will be located within the Proposal Development Envelope: • The Transmission Corridor (174.13 ha) • The Northern Terminal (19.56 ha) • The Neerabup Terminal (11.71 ha).
Construction elements		
Dewatering to construct tower footings.	Within Development Envelope. Refer to Attachment 1 indicative project layout.	Dewatering during construction only. Construction will take approximately two etars
Operational elements		
Operation and maintenance of transmission infrastructure	Within Development Envelope. Refer to Attachment 1 indicative project layout.	Operation and maintenance of transmission infrastructure.
Proposal elements with greenhouse gas emissions		
Construction elements:		
Scope1	12,000 t CO2-e Scope 1 emissions have been calculated using emission factors as per the National Greenhouse and Energy Reporting (Measurement) Determination based on available project projections and/or existing	

	operational data for fuel use (transport and stationery) and land clearing. Supporting documentation can be provided on request due to commercially sensitive information used in emissions modelling.
Scope 2	Nil
Scope 3	N/A Scope 3 emissions are excluded in this estimate due to the lack of consistent available methods to provide a reliable estimate across range of associated Scope 3 categories associated with the project.
Operation elements:	
Scope 1	125 t CO2-e /yr Scope 1 emissions have been calculated using emission factors as per the National Greenhouse and Energy Reporting (Measurement) Determination based on available existing operational data for fuel use associated with operational and maintenance activities (transport), and use of SF6 within circuit breakers.
Scope 2	10,000 t CO2-e /yr Based on electricity losses during transmission (line losses). Scope 2 emissions calculated as per the National Greenhouse and Energy Reporting (Measurement) Determination 2008, Method A1 for estimating emissions from electricity consumption. 10,000 CO2-e/yr represents year one losses. Scope 2 emissions are projected to decrease year on year as this project, together with other network augmentation projects facilitates further connection of renewable energy generation to the SWIS.
Scope 3	N/A Scope 3 emissions are excluded in this estimate due to the lack of consistent available methods to provide a reliable estimate across range of associated Scope 3 categories associated with the project.
Rehabilitation	
Areas cleared for temporary construction activities will be rehabilitated following completion of construction.	
Commissioning	
Commissioning will include testing and assurance at the end of construction. These activities are included in the extent of construction elements.	
Decommissioning	
Decommissioning is not anticipated within life of asset (>50 years). Prior to the end of design life, the transmission line and associated infrastructure will be reviewed to determine the ongoing needs of the network and whether assets will be removed, upgraded or replaced.	

Other elements which affect extent of effects on the environment		
Proposal time*	Maximum project life	Permanent infrastructure (>53 years)
	Construction phase	1-2 years
	Operations phase	>50-year design life
	Decommissioning phase	N/A

** Proponents should only provide realistic timeframes to avoid unnecessary change to proposal applications at referral (section 38C), assessment (section 43A) or post assessment (section 45C).*