Template

Proposal Content Document

Table 1: General proposal content description

Proposal title	K2 Project
Proponent name	Western Energy Pty Ltd
Short description	This Proposal is to expand the existing Kwinana Swift Power Station by up to 250 MW. Up to four new gas-powered turbine units and associated infrastructure is proposed to be built, which could be operational on natural gas, diesel, distillate, ethane, liquified natural gas (LNG), liquified petroleum gas, (LPG) and/or hydrogen. The total plant capacity, including the existing units (which are not part of this Proposal), will be up to 370 MW.

Table 2: Proposal content elements

Proposal element	Location / description	Maximum extent, capacity or range
Physical elements		
Gas-powered turbine units and associated infrastructure	Figure 1-2	The development envelope is 3.55 ha. This area contains the four existing gas turbines and the footprint for the proposed gas turbines, being the subject of this application. The associated infrastructure includes an overflow evaporation pond and infrastructure linking the turbines to the substation area.
Substation area	Figure 1-2	Existing and proposed switchyards and power supply infrastructure required to convert the power supply to a form that can be accepted by the Western Power substation.
Balance of plant	Figure 1-2	Area in the northern portion of the Site contains the existing support infrastructure including fuel storage, water treatment, offices, workshops, warehousing and auxiliary equipment.
Construction elements		
Laydown areas, workshops, car parks and worker amenities	N/A	A laydown area is required however the location has not yet been confirmed. We anticipate this will be within or near the Kwinana Industrial Area (**KIA**).

		The remaining construction requirements can be serviced by existing site facilities. Clearing of native vegetation will not occur as a result of this activity.
Wastewater discharge pipeline	N/A	Augmentation of existing pipeline infrastructure to meet the expansion requirements.
Operational elements		
Gas-powered turbine units	Figure 1-2	Gas-powered turbine units with a capacity up to 250 MW.
Fuel supply (natural gas, diesel)	N/A	Dependent on the actual operating hours. Upper estimates range from 50 TJ/day (natural gas or diesel)
Water supply		Scheme water will be supplied from the Water Corporation at rate of 100m3 per hour
Wastewater effluent		Maximum of 720 kl/day expected during operations to be discharged Water Corporation's Kwinana Water Recycling Plant (**KWRP**) which includes a licenced discharged via the Sepia Depression Ocean Outlet Line (**SDOOL**).
Proposal elements with greenhouse gas emissions		
Construction elements:		
Scope 1	Not expected to be material.	
Scope 2	Not expected to be material.	
Scope 3	Not expected to be material.	
Operation elements:		
Scope 1	191,763 t CO_2-e per annum (/a) on average 8,629,357 t CO_2e Gross GHG Emissions[1] over the life of the Proposal 3,886,834 t CO_2e Nett GHG Emissions[2] over the life of the Proposal	
Scope 2	530 t CO_2-e/a on average 23,850 t CO_2e total over the life of the Proposal	
Scope 3	22,462 t CO_2-e /a on average 1,010,793 t CO_2e over the life of the Proposal	
Rehabilitation		

Once the operations cease, the site will be remediated and rehabilitated to ensure the premises are left in an environmentally acceptable, non-polluting, and safe condition.

Commissioning

Commissioning of the new gas-turbines is planned to start 18 months after construction commences and expected to take 9 months to complete. Commissioning will be executed according to the environmental commissioning plan. This plan will be submitted to Department of Water and Environmental Regulation (**DWER**) as part of the DWER Works Approvals application and assessment process under Part V of the EP Act.

Decommissioning

Once the operations cease, the site will be remediated and rehabilitated to ensure the premises are left in an environmentally acceptable, non-polluting and safe condition. A final decommissioning plan will be prepared and provided for EPA's consideration prior to the anticipated date of decommissioning.

Other elements which affect extent of effects on the environment

Proposal time	Maximum project life	Expected life of 48 years[3]
	Construction phase	24-36 months
	Operations phase	45 years
	Decommissioning phase	12 months

[1]Gross GHG emissions are the total potential emissions from the Proposal based on the projected demand over the life of the Proposal.

[2]Nett GHG emissions are the Gross GHG Emissions minus offsets predicted to implemented over the life of the Proposal.

[3] This combines the maximum construction period of 36 months and the operational period of 45 years.