Appendix 2 – Application to extend licence boundary (public version)

Background

Southern Cross Energy Partnership (**SCE**), a partnership between TEC Desert Pty Ltd and TEC Desert No.2 Pty Ltd owns and operates transmission, distribution and electricity generation assets in the Goldfields area of Western Australia. Operations are concentrated around a northern hub with generation at Mount Keith and Leinster, and a southern hub with generation at Kambalda and at Kalgoorlie Nickel Smelter.

SCE has developed a project to construct and operate two 132kV substations connected by a 2km overhead powerline to be located and integrated into the SCE northern grid (**NMK 132kV Expansion Project**). To allow construction and operation of the NMK 132kV Expansion Project, SCE is applying to amend the boundaries of its ETL4 transmission licence.

Description of network additions

ETL4 Licence Area

A new point of supply to SCE's ETL4 licence area will be located at the new eastern 132kV substation, located immediately north of Mt Keith Power Station and adjacent to the east of NiW's Mt Keith processing plant, at approximate coordinates of 27°12'45.79" S, 120°32'50.30" E. The new point of supply with be established to allow the potential connection of future thermal generation.

A new load connection point to SCE's ETL4 licence area will be established at the new western 132kV substation, located adjacent to the east of NiW's Mt Keith processing plant, at approximate coordinates of 27°12'50.59" S, 120°33'28.79" E

SCE will connect the east and west substations by a new 132kV overhead power line extending in a easterly direction to the north of the NiW Mt Keith processing plant for approximately 2 kilometres, requiring approximately 16 poles to string the conductors.

Design, Construction and Operation

The project will consist of three primary components:

- **132kV Substation (West)**: a 132kV indoor gas insulated switchgear (GIS) substation, GIS building, 132kV/11kV 60MVA generator step-up transformer, 132kV underground cable to overhead line transition yard, and controls/protections building, located adjacent to the existing Mt Keith power station and connected into SCE's existing network;

- **132kV Substation (East)**: a 132kV indoor GIS substation, GIS building, 132kV/11kV 60MVA step-down transformer, 132kV overhead line to underground cable transition yard, and 11kV switchgear and controls/protections building, located at the eastern end of the Mt Keith processing site; and

- **132kV Transmission Line**: approximately 2km of overhead 132kV powerline, rated to a minimum of 120MVA including optical ground wire for communications, connecting the above eastern and western 132kV substations.

For this project preliminary engineering design, including necessary network and protection studies, have been undertaken by SCE and Arcadis which has facilitated a tender process. The evaluation of tender submissions included an assessment of each contractor's ability to work within our health and safety standards, ability to apply good engineering and project delivery practices, ability to comply with all relevant laws, regulations and standards and an assessment of financial viability. The preferred EPC contractor selected by SCE satisfies this evaluation criteria and has experience in successfully delivering similar projects and demonstrated a solid understanding of the scope and safety requires of the project and of operating within a mine site environment.

Upon contract award, detailed engineering design, procurement, construction and commissioning will be undertaken by SCE's preferred EPC contractor, which will endeavour to maximise the engagement of local and indigenous employment opportunities subject to availability and capability assessments.

SCE has a mature and established asset management framework that is currently used to manage the already existing extensive network of similar assets to those that will be constructed. The new assets will be integrated into our existing business and be managed via the same proven asset management systems already in place. These have been audited on a regular basis as required by the licencing framework administered by the ERA with high levels of compliance being evidenced most recently in the 2018 audit.

Licensee's suitability

SCE currently holds a transmission licence (ETL4) and has been constructing, operating and maintaining assets similar to those that will be included within the proposed extended licence areas since the late 1990s. The wider TransAlta group of companies has been operating and maintaining generation, transmission and distribution assets for more than one hundred years.

SCE continues to maintain a high level of compliance with its ETL4 conditions as recently evidenced by audit findings in 2018. SCE will integrate the proposed new assets within the existing framework for asset management.

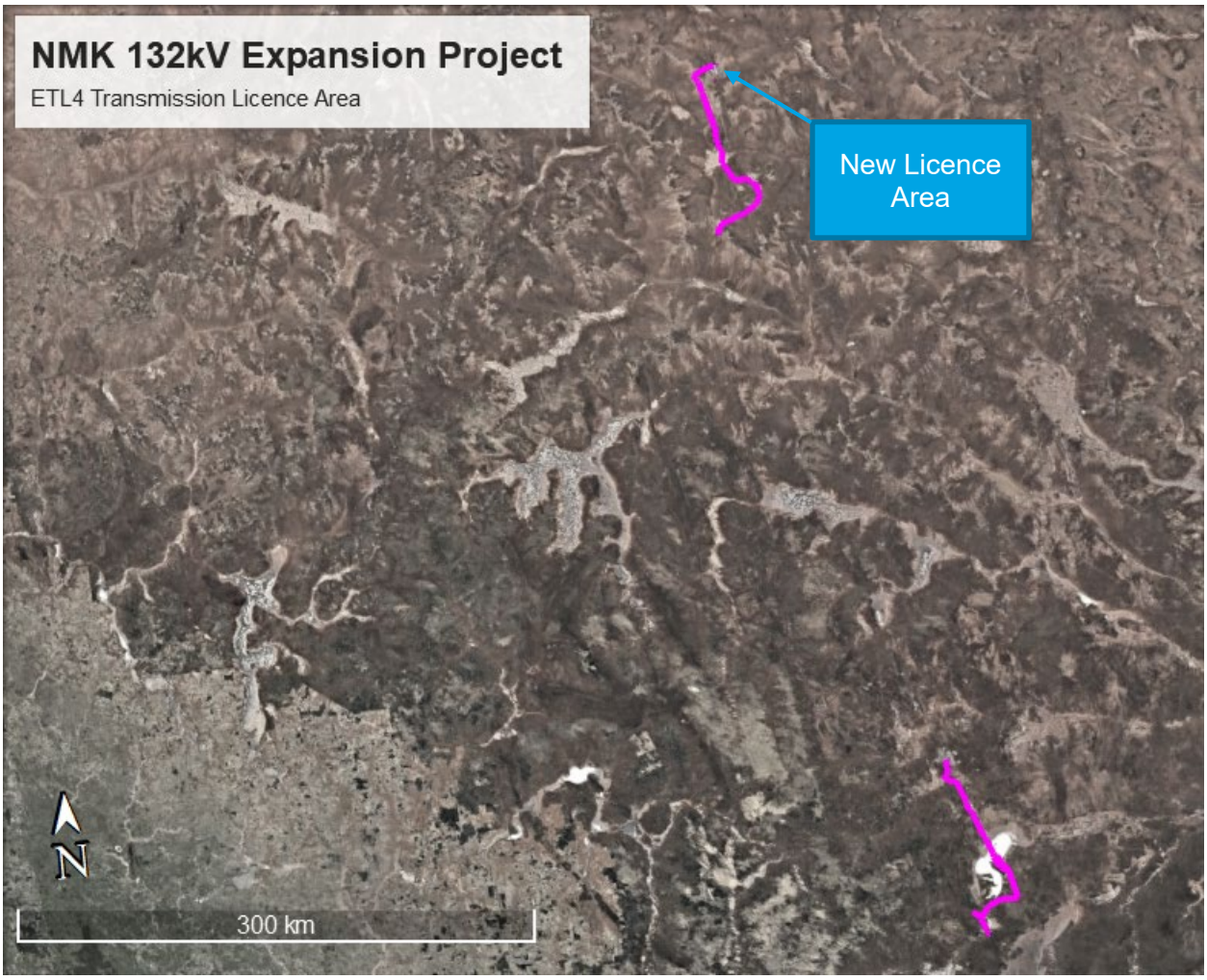
We continue to consider SCE as a suitable entity to construct, maintain and operate the proposed new assets by extending the licence areas for ETL4.

The investment associated with the proposed project is nominal in the context of SCE's revenue streams and overall asset base and can be managed through SCE's normal operations.

Proposed extension of licence boundary area

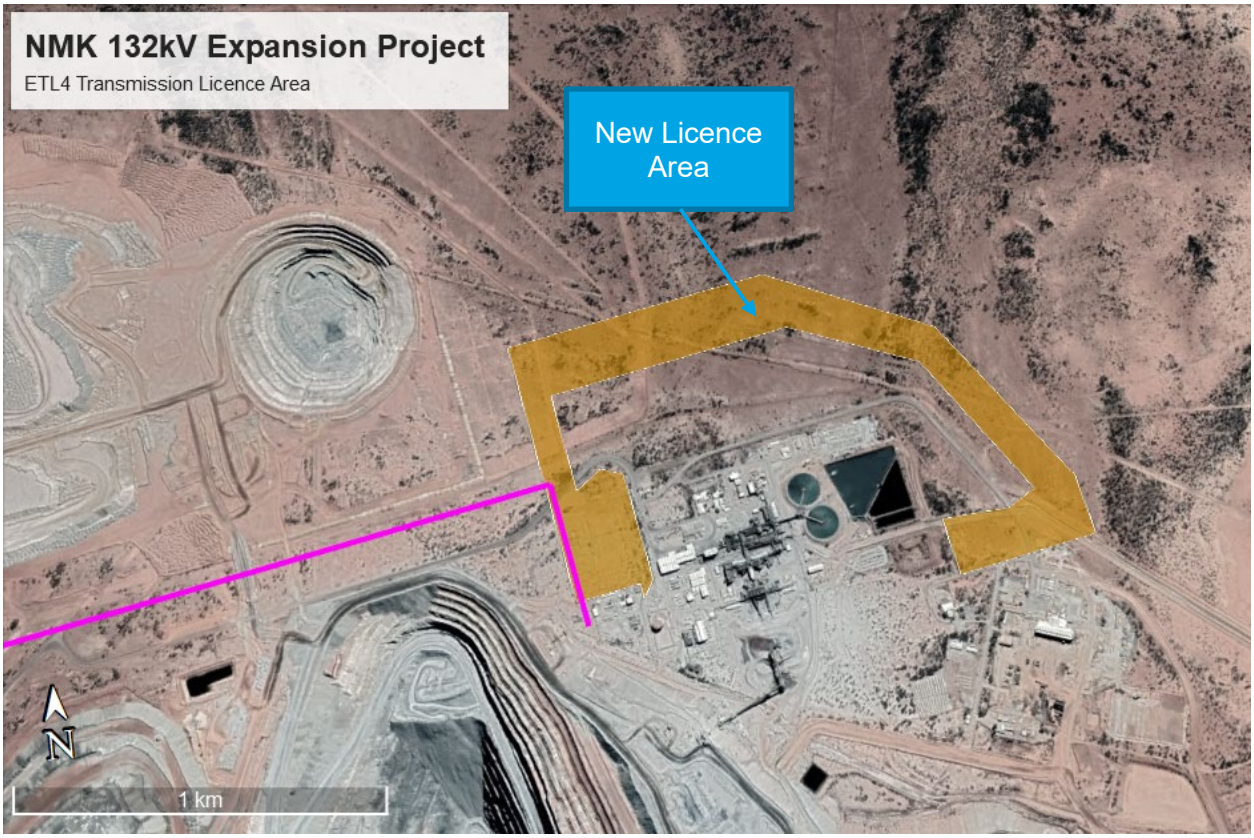
The proposed extension of the licence area ETL4 is illustrated in Figure 1 and Figure 2 below. The extension of each licence area from the existing licence area (represented by the purple lines) is represented by the orange line.

Figure 3: Location of new ETL4 licence area relative to existing licence area[4]



[4] ETL4's existing licence area is depicted by the red solid lines. The proposed extension is depicted by the purple solid line.

Figure 4: Detail view of ETL4 new licence area (shaded in orange)



Public interest

SCE is not aware of any detriments to the public interest that may flow from the extension of the licence areas.