

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 a new solar farm and energy storage system (**BESS**) to be located and connected to the SCE northern grid (**SCEN Renewables Project**). To allow construction and operation of the SCEN Renewables Project, SCE is applying to amend the boundaries of its EDL3 distribution licence and ETL4 transmission licence.

Description of network additions

EDL3 Licence Area

The new point of supply to the EDL3 licence area will be located around 900m north-east of Mt Keith Power Station along SCE's existing 33kV overhead power line, at approximate coordinates of 27°12'43.54" S, 120°33'28.20" E. This is approximately 8km north of the Mt Keith township. The new point of supply will be established to allow the connection of a 20.0MW_{AC} solar PV array.

SCE will establish this new point of supply by connecting a new 33kV overhead power line into its existing 33kV transmission line and extending it in a north-easterly direction for approximately 200 metres, requiring approximately 3 poles to string the conductors. Approximately 1.4 kilometres of 33kV above-ground installed distribution cable will extend from the new 33kV overhead power line, terminating at six inverter substations.

ETL4 Licence Area

The new point of supply to SCE's ETL4 licence area will be located around 2.9km south east of Leinster Power Station along SCE's existing 66kV overhead power line, at approximate coordinates of 27°49'56.25" S, 120°43'06.17" E. This is approximately 9km north of the Leinster township. The new point of supply will be established to allow the connection of an 8.5MW_{AC} solar PV array.

SCE will establish this new point of supply by connecting a new 66kV overhead power line into its existing 66kV transmission line and extending it in a north-easterly direction for approximately 3 kilometres, requiring approximately 25 poles to string the conductors. A new substation will be built at this north-eastern end where the 66kV power line will terminate.

Design, Construction and Operation

The project will consist of three primary components:

- Mt Keith Solar PV: a 20 MW_{AC} solar PV array and 33kV transmission line connection located north-east of BHP Nickel West's Mt Keith operations;
- Leinster Solar PV: an 8.5 MW_{AC} solar PV array and 66kV transmission line connection located south-east of BHP Nickel West's Leinster operations; and
- Leinster BESS: a 15.2MW / 5.58MWh BESS to be installed within Leinster Power Station.

For this project preliminary engineering design, including necessary network and protection studies, have been undertaken by SCE. A tender process has been undertaken to select a preferred EPC contractor. That evaluation included an assessment of each contractor's ability to work within our health and safety standards, ability to apply good engineering and operating 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 may include the provision 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 distribution licence (EDL3) and 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, distribution and distribution assets for more than one hundred years.

SCE continues to maintain a high level of compliance with its EDL3 and ETL4 conditions as recently evidenced by audit findings in 2018. SCE will integrate the proposed new assets within the existing framework for asset management.

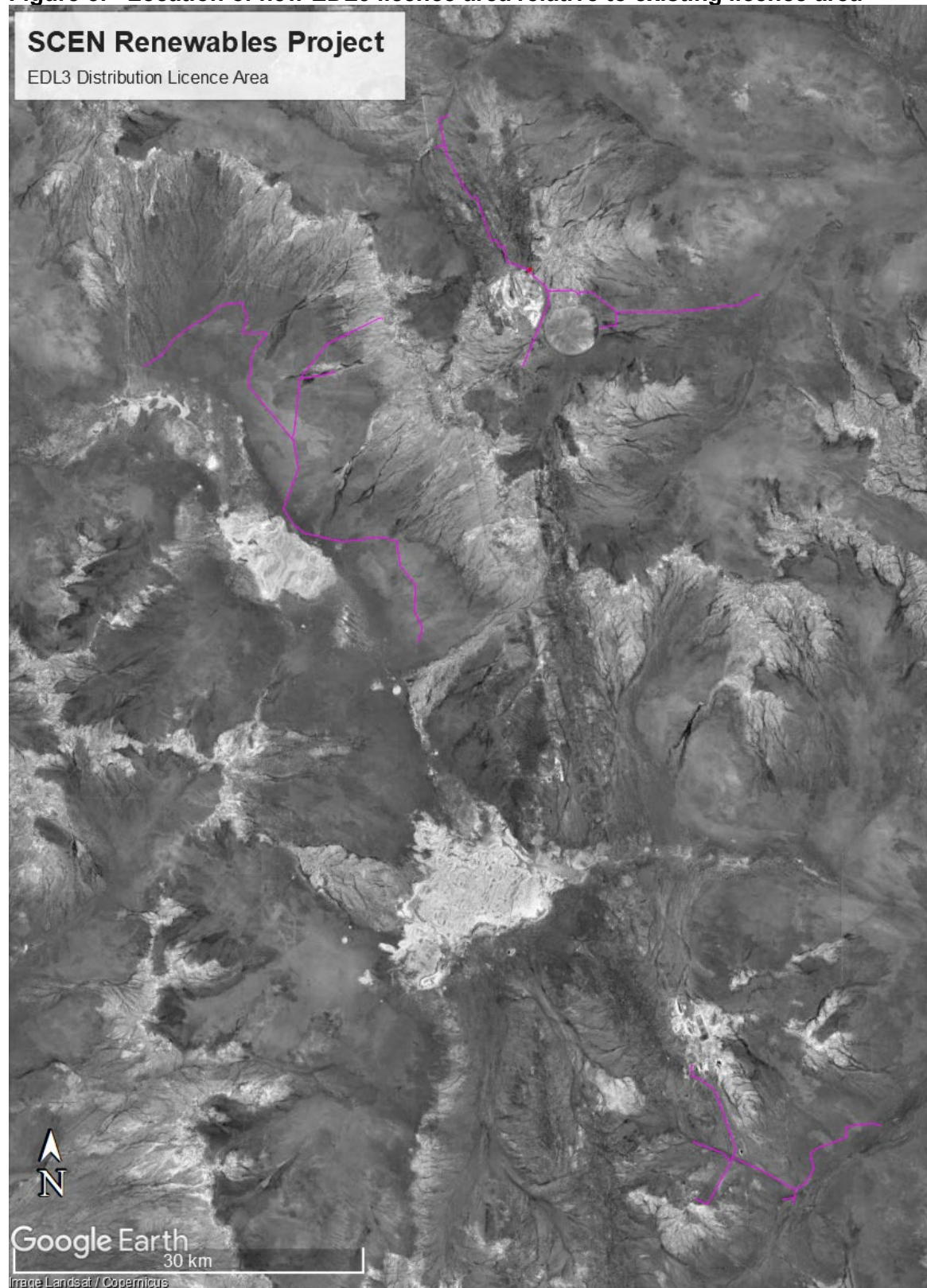
We continue to consider SCE as a suitable entity to construct, maintain and operate the proposed new assets by extending the licence areas for EDL3 and ETL4.

The investment associated with the proposed new supply point 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 for EDL3 is illustrated in Figure 5 and Figure 6 below, and for ETL4 is illustrated in Figure 7 and Figure 8 below. The extension of each licence area from the existing licence area (represented by the purple lines) which is to contain the new transmission or distribution infrastructure is represented by the red area, with the new substation infrastructure represented by the orange area.

Figure 5: Location of new EDL3 licence area relative to existing licence area⁵

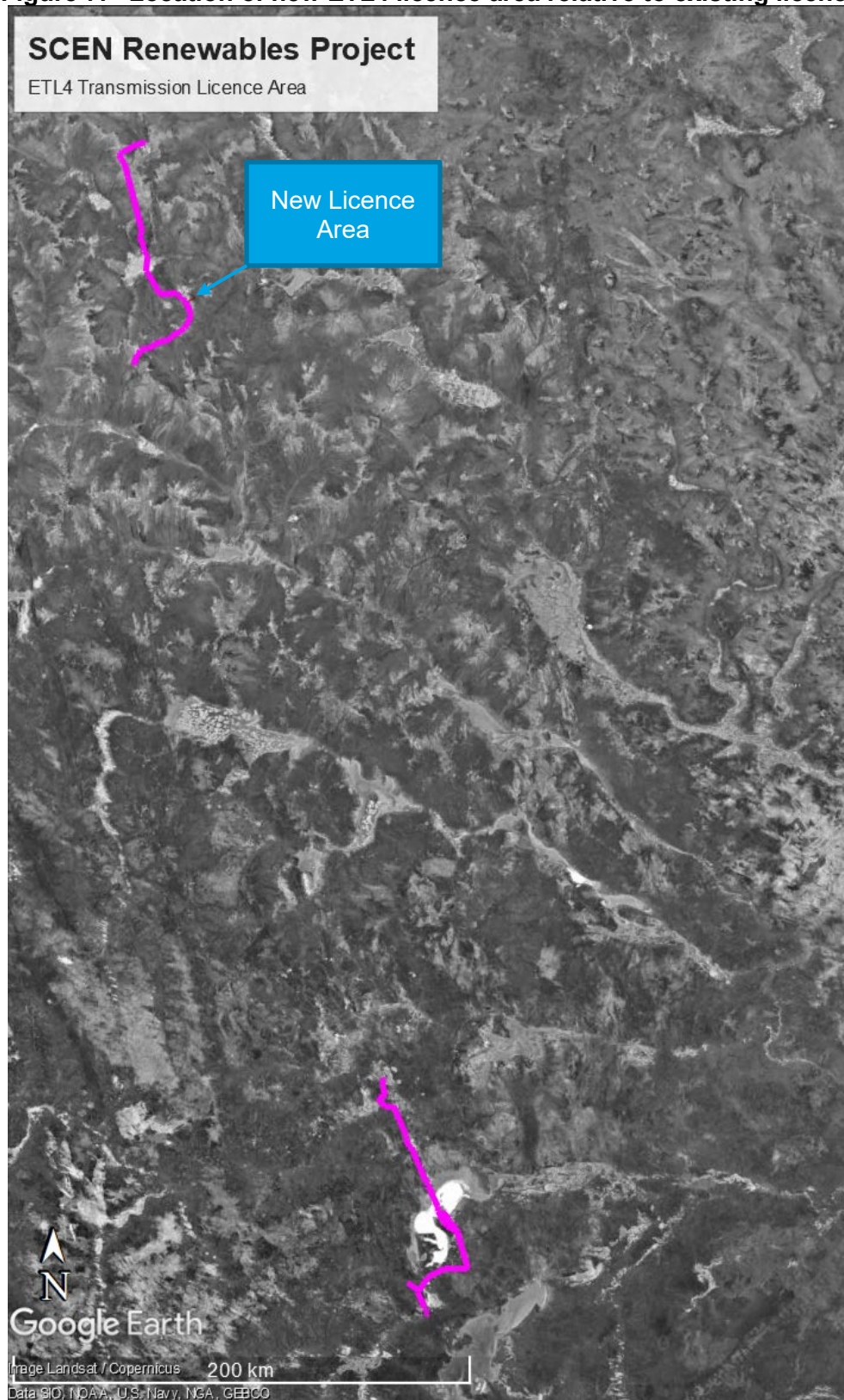


⁵ EDL3's existing licence area is depicted by the purple solid lines. The proposed extension lies within the red solid line.

Figure 6: Detail view of EDL3 new licence area



Figure 7: Location of new ETL4 licence area relative to existing licence area⁶



⁶ ETL4's existing licence area is depicted by the red solid lines. The proposed extension is depicted by the purple solid line.

Figure 8: Detail view of ETL4 new licence area



Public interest

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