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Pitt & Sherry (Operations) Pty Ltd
ABN 67 140 184 309

Phone 1300 748 874
info@pittsh.com.au
pittsh.com.au

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Minutes of meeting – Copperstring Camps - Ergon

Venue	TEAMS
Date	16/8/2023 *[plus post meeting notes from Ergon 24/8/23]*
Time	1pm-2:30pm
Present	p&s - Arthur Bool AB - (chair), Chris Squires(CS)
	Ergon – Mark Neill (MN), Peter Bacic (PB), Darrin Hoffensetz (DH)
Apologies	Nick Poon (NP)

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1. Introductions

1.1. Pitt&sherry role – Engineering consultant to the JV (UGL CPB JV)

1.2. Pitt&sherry can provide contact details of the JV if Ergon want to engage on other matters. Ergon also wanted contact details of local council's to talk about upgrades with treatment plants and the like (AB to seek permission from NP or advise NP to pass these details on).

2. Charters Towers

2.1. There is an existing overhead line nearby that can be used for the supply. Existing feeder has capacity available for a 1MVA pad-mounted transformer (with final sizing to be confirmed).

2.2. Ergon would need to extend the OH line from MacPherson Street up the road to the camp. Ergon will need to consider airport flight paths for placement of the poles.

2.3. Ergon only likely to give one (1) point of supply per camp, so need to consider camp layout.

2.4. Ergon wanted to know if the concrete batch plant needs mains power or was to be diesel generator powered. CS mentioned it can be run from a generator but AB mentioned the JV would like to know if it could also be fed from the mains supply as an option.

2.5. CS advised the concrete batch plant may not be a big load (typical max: 100 Amps).

2.6. Ergon advised the existing supply in Charters Towers, as 'high security'. i.e. it has a low probability of extended outages.

2.7. Ergon said they can provide previous local reliability data to advise JV of the risks / outages for consideration of backup supply options.

3. Pentland

3.1. Ergon advised it only has a 1MVA distribution transformer in the Pentland area and that this was already loaded at 75% (750kVA). *[single 1MVA 66/11kV substation transformer]*

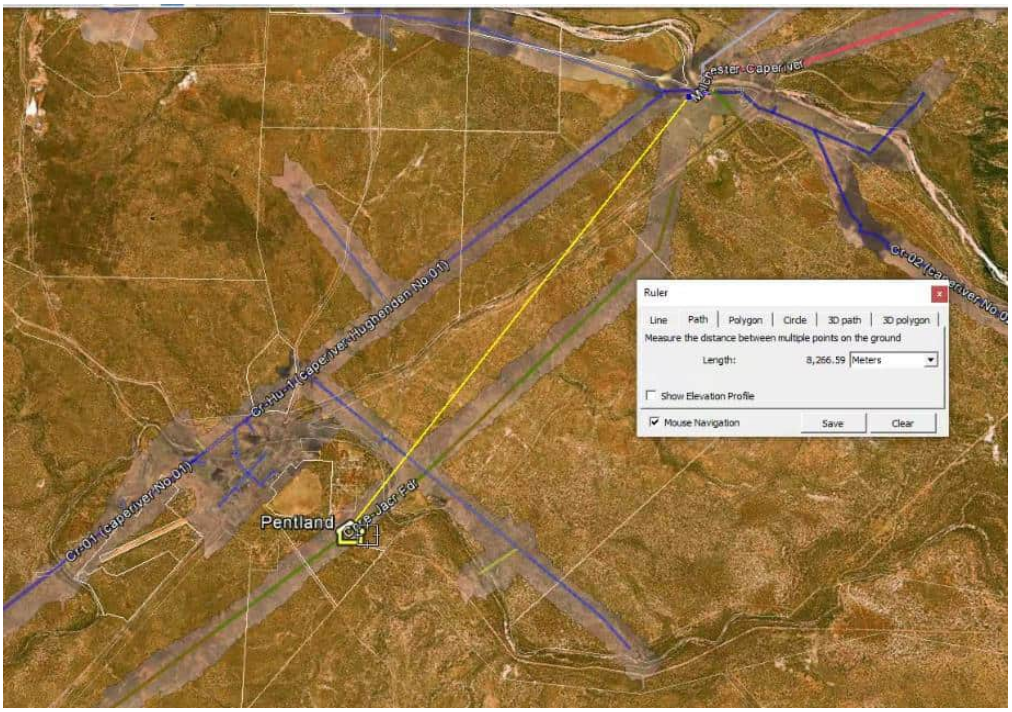
3.2. Ergon also advise the site is a long distance from the transformer/substation (~8-10km) and the conductors are 'weak'.

3.3. The old transformer is old and any changes could take 12-18 months.

3.4. As a result, Ergon may have lack of supply capacity/capability and they recommend the JV consider alternatives, such as gas for cooking etc. Ergon also said the JV should consider what the minimum power demand would be that they could live with. i.e. is the 250kVA remaining capacity suitable.

3.5. Area supply is considered by Ergon as 'high risk' due to distance from substation and substation capacity.

3.6. Ergon wondered if the camp could be moved closer to the substation for better access to their supply capacity.



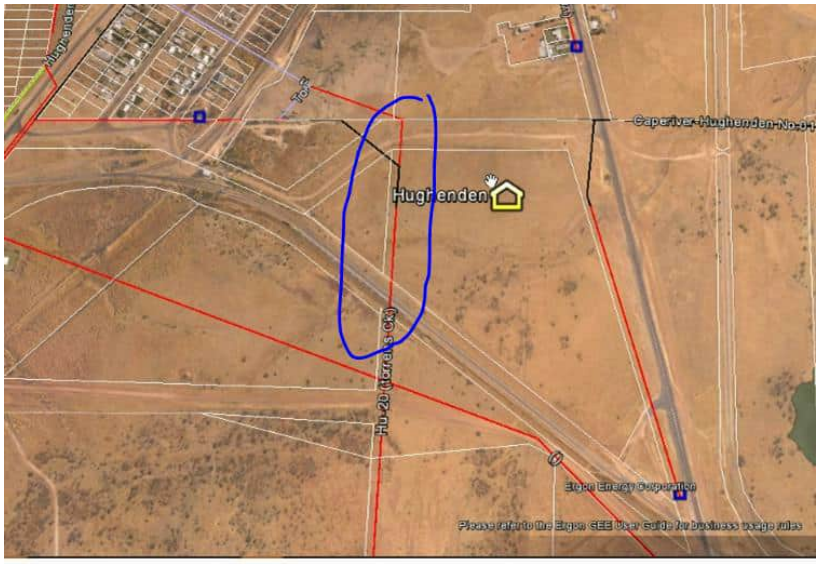
4. Hughenden

4.1. Existing network is 33kV, meaning no pad mount transformers are able to be installed. Ergon advised that the existing supply was considered as 'high security'.

4.2. 500kVA pole mount transformers expected to be ok, with two (2) x 500kVA pole mounted transformers required to meet the camp demand (estimated at 820 kVA). Note: Ergon won't parallel the two (2) supply transformers, which will mean that the designer will need to balance (or split) the expected camp loads between each transformer.

4.3. There is an overhead line running North-South along the western boundary of the site that we need to be at least 10m clear of. AB to check. AB to ensure this is shown on the site layout plans.

4.4. There are a few options for point of supply that Ergon will consider. – possibly a) from near the residence to the north or b) from the rail line to the south, or c) from the ~~*transmission*~~ *33kV* lines on the site.



4.5. Ergon advised us of the "*Look Up and Live*" website which shows their assets - Look up and Live map - Ergon Energy

5. Richmond *[Same distribution transformer size limitation as HUGH - i.e. 500 kVA max. size]*

5.1. 33kV line runs over the top of the proposed camp, and they can be relocated if required.

5.2. Ergon said the OH lines prior to about 1994 didn't need to have easements established, hence this is why there is no easement on the title. New OH lines do need easements.

5.3. If the JV want to relocate the OH line, they should expect timeframe of 12-18 months and 100% cost is to be borne by the customer.

5.4. Application process for line relocations is to lodge a Detailed Enquiry on the Ergon website Customer Portal which electrical contractors can do. - Ergon Energy Customer Portal

5.4.1. ***Web link- New connections - Ergon Energy***

5.5. The local feeders have capacity for the camp, and the supply is considered as 'high security'.

5.6. Power supply to camp could come from extension off Macgoffin Street.

6. Julia Creek

6.1. Ergon advised Julia Creek also supplied by one distribution transformer (6.3MVA) *[one 66/33kV 6.3 MVA substation transformer],* loaded at approximately 3.9MVA (62%), and is considered as at risk (i.e. medium security). However, supply capacity of 500kVA is available. *[Same distribution transformer size limitation as HUGH - i.e. 500 kVA max. size].*

6.2. The 19.1kV lines running on the site can't be used as a feeder or point of supply (as we understand it is single phase).

6.3. Ergon supply is likely to come from extending the existing supply to the east, near corner of Old Normanton Road, Hickman Street and Allison Street or Old Normanton Road and Quarrell Streets.

6.4. AB confirmed that Council had also mentioned Julia Creek had unreliable power and that they have diesel generator backup for key uses.

7. Cloncurry

7.1. Ergon mentioned the existing supply to the proposed Cloncurry site has “skinny” conductors (weak overhead lines) running to the site.

7.2. As such, they indicated that the overhead line may need to be upgraded (all or parts) from where it connects to the township, which was about 3km away.

7.3. Therefore, whilst supply capacity is available within the township, capacity to the site on the outskirts of town is considered high risk.

7.4. Ergon advised that further investigation / detailed assessment would be required to advise limit (capacity) of what could be provided to the site, using the existing conductors. This assessment could be undertaken following submission of a new connection application.

7.5. Ergon suggested for the JV to consider splitting the supply requirements, with part Ergon (Overhead) connection and part self-generation. Consideration to also be given to the use of gas for kitchen and hot water use to reduce the electrical demand. *[Given the 66kV contingency transfer constraints, your backup generation may need to be considered- Ergon supply via our contingency 66kV from Mt Isa would likely require your load curtailment]*

8. General

8.1. Ergon said they are obviously aware of the Copperstring project and have been waiting to get involved.

8.2. They also want to know what other township power demands may go up as a result of the Copperstring Project activities (e.g. increased power demands in town – other businesses getting busier etc) that can be of detriment to the reliability of power supply to these camps. They’d like to engage with Councils and the JV.

8.3. They also mentioned that the work they’ve done to date is effectively free to help the project and to help them see impacts, but further works and assessments really need to be via a formal application via their Customer Portal. This is so they are funded to do the investigations and will allow them to set up a project reference number (or numbers) to start and carry out the assessments and designs that may be required.

8.4. Peter Bacic was the main person doing the technical assessments thus far.

8.5. AB said he would pass this meeting info on the JV, and that we would include a summary within our design report.

8.6. Mark Neill said he was contactable should anyone needed help. His contact details are:

Mark Neill
Negotiated Connections Lead
Connections Solutions | Customer Group

Ergon Energy Network | Energex
Level 1, 23 Cemetery Rd, Mackay QLD 4740
M 0418 874 601
E mark.neill@energyq.com.au
ergon.com.au | energex.com.au

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