### PRE-LODGEMENT MEETING MINUTES (i<sup>3</sup> ref: 16-076)

**Date:** 30/08/2016

Time: 11:30AM to 1:00pm

Proposal: 150MW Solar Farm developed in two stages at Alpha Street Bypass Road, Clermont over land

described as Lot 6 SP159756, Lot 220 CLM102 and Lot 153 CLM230

#### Attendees:

C – Isaac Regional Council		E – Epuron	I <sup>3</sup> – Icubed Consulting	W – Wall Planning
ounon		Jessica Picton	Elizabeth Cruice	Renee Wall
Manus Basson	Planning Manager	Matthew Wilmott	Nick Canto	
David Webster	Engineer			
Joseph Kirkwood	Planner			
Nicole Hartney	Planner			

### Agenda Items:

### **Item 1: Subdivision**

Ε

- Subdivision of Land (Faint Lot) with vehicle access via road reserve
- Important aspects for consideration include minimisation of vegetation clearing and ecological impacts, access, terrain and drainage

C

- Advised only 3 parcels make up Lot 6 (Faint Lot), hence subdivision is 1 into 3 lots to create 3 titles Maintenance of Road Reserve for legal access to other lots may be hard. Would need to consider.

Ε

- Are there any issues with the Subdivision (ROL)?

C

- If subdivision was for a specific purpose, we would consider it
- It would be best if the ROL and MCU ran together, as a straight ROL application would need to meet various agricultural requirements

Ε

- What other matters need to be taken into consideration for subdivision?

C

- Closure of Lindley road reserve to consolidate Stage 1 under one land parcel

Ε

Closure of Lindley road reserve would give advantage of less perimeter fencing

C

 Unknown if all lot parcels serviced by Lindley road would have alternative road access if Lindley Road was closed. Suggest relocation of Lindley road to western boundary of Lot 6.

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- Conscious of time in regards to road realignment/ reallocation.
- Does this have to occur prior to application with Council?

C

- SLAM (State) approval will be required for road relocation.
- Prefer if this was sorted out before application to Council. Further investigation needs to be undertaken regarding particulars.
- Recommend to contact the State Government before lodging an application to make them fully aware in regards to what is happening on the site
- Suggest that easement for powerline access is completed at same time as other components of development.
- W Local contact at SLAM is Kim Donnelley (Mackay office)
- GQAL Resultant lot sizes smaller than prescribed in current Planning Scheme. Epuron will make
  a case to Council that on balance of the social, environmental and economic benefits and the
  suitability of the site for the Solar Farm.
- C Advised that the subdivision of the GQAL not an issue provided land subdivided for specific purpose to accommodate the solar farm.
- Consider combining components within single development application (DA):
  - Lease (ROL)
  - Subdivision (ROL)
  - MCU (for solar farm use)
  - Easement (ROL)

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 Advice: Ergon Energy requires an easement for Ergon Assets at either end of transmission line to protect their assets.

### Item 2 and 3: Visual Assessment and Landscape Buffering

Ε

Preferences for visual and landscaping matters

C

- Vegetation buffer deemed sufficient
- Concerned with glare effect from solar panels affecting drivers on the Alpha Bypass Road and part of the Clermont Alpha Road

Ε

Design of solar arrays is to capture not reflect light

C

- Suggest targeted screening for road users particularly for afternoon glare
- Impacts are higher for Stage 2 however address both morning and afternoon glare impacts

Ε

- Dual Axis Tracking 6 (north facing) will avoid issue

C

- Condition may be placed on tracking depending on the type of rays that occur within the locality
- Aviation concerns from glare raised

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- Advised that solar panels have been installed in airports around the world eg. Singapore Changi Airport

C

Visual assessment report required

Ε

- Any issues regarding visual impacts of transmission line?
- Any Landscaping Requirements?

C

- Not a major concern.
- No specific landscaping requirements proposed. Query previous landscaping provided at other solar farm facilities.

### Item 4: Lighting

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- Any issue regarding lighting and night time activities?

C

- No issues with regard to lighting requirements as proposed

# **Item 5: Stormwater**

C

 Concerned about change in surface regarding sediment movement. Gradients of land to be considered in application

Ε

 No major impacts proposed regarding drainage. Keeping clear and managing sediment to appropriate standards

C

- Basic Stormwater Management Plan to take into account runoff calculations, methods of erosion and sediment control, pollutants controls
- Contour drainage preferred to slow down water runoff
- Bund or silt fencing along waterways
- Prefer detailed survey with contours of 1m, but will accept 2m intervals

### Item 6: Electromagnetic Radiation

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- Any issue regarding community concerns over EMR?

C

- Happy with basic report to address community concerns

### **Item 7: Car Parking**

C

- Locate car parking near facilities
- Would additionally like to know where all services and facilities for staff are to be provided onsite

### Item 8: Access

C

- With 5 workers expected to be employed there should be minimised traffic impacts
- No Traffic Impact Assessment required
- Prefer to condition approval that any damage during the construction phase is to be rectified by applicant

Ε

- Construction of 6 months confirmed
- Traffic from Mackay direction confirmed

C

Preferred route is State Controlled Road

Ε

- **Tropic Street** 40 or 50 km/hr due to education precinct → Local traffic issues if this route is utilised?
- Bitumen Alpha by-pass road is sealed, but western section is gravel

C

- Not concerned about road upgrade or residents with the level of traffic generated

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- Any school bus routes of concern that we should be aware of?

C

- School bus route is to the north of town
- Request an indication of the number of vehicles and construction traffic
- Intersection upgrade to support light vehicle may be required
- Re
- Request Construction Management Plan
- EMP potentially provided

### **Item 9: Good Agricultural Land**

C

- Lifespan of project being 30 years, difficult to determine decommission requirements, but reverting back to agricultural land for Stage 2 is preferred
- No soil studies necessitated

# Item 10 & 11: Vegetation Clearing

W

Combining easements ok

C

- No local government concerns over vegetation clearing.

# **Item 12: Landowners Consent**

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- Advise permit to occupy approval (State) will be required for private infrastructure traversing road reserve.

C

- Council assumed they would be the authority on this approval, but will need to investigate further.

# Item 13: Other

C

- Decommissioning report not required for application, but will be conditioned before Stage 2 occurs, or 12 months after Stage 1 is completed.

- Draft decommissioning report would be good to have
- Dust Reduction through dust inhibiting material used on roads is preferred for long-term management of the site. Details on how this will occur should be provided
- Fees for application
  - o MCU \$23,000
  - o ROL unknown but estimated at another \$10,000. Council to verify.
  - Earthworks may trigger OP Works application. Fees will be based on value of works on sliding scale. Require Bill of Quantities to determine fee.
- Infrastructure Charges
  - o Undetermined. Council to verify
- Draft conditions to be provided once DA lodged, as there are no prior examples
- IRC will look at the Lilyvale Solar Farm (outside of Tieri) approved by Central Highlands Regional Council as a "local" example of recent approval.



Department of Infrastructure, Local Government and Planning

Our reference: SPL-0616-031319

Date: 27 July 2016

Epuron Island GP Management Pty Ltd (Epuron) Level 11, 75 Miller Street North Sydney NSW 2060

Att.: Jessica Picton

Dear Ms Picton,

# Pre-lodgement meeting record—proposed development – Material Change of Use for Solar Farm and Operational Works for Vegetation Clearing

This pre-lodgement record provides a summary of the matters discussed at the prelodgement meeting in addition to providing further advice prepared subsequent to the meeting. This record provides initial advice regarding the likely major issues relevant to the development proposal to assist in the timely processing of a development application. While this pre-lodgement advice is provided in good faith, if the proposal is changed to that which was discussed with the department during the pre-lodgement meeting, this advice is not binding.

### **Reference information**

Departmental role: Assessment manger / Concurrence agency

Jurisdiction: Schedule 7, Table 2, Item 5 –Clearing Vegetation –

**Operational Works** 

Schedule 6, Table 3, Item 2 –Clearing Vegetation –

**Operational Works** 

Schedule 7, Table 3, Item 10 –Clearing Vegetation –

Material Change of Use

Schedule 7, Table 2, Item 4 –Clearing Vegetation –

Reconfiguration of a Lot

Schedule 7, Table 3, Item 1 –State Controlled Road –

Material Change of Use

Schedule 7, Table 2, Item 2 – State Controlled Road –

Reconfiguration of a Lot

# **Reference information**

Schedule 7, Table 3, Item 29 – Waterway Barrier Works Schedule 6, Table 3, Item 11 – Waterway Barrier Works

Pre-lodgement meeting date:

1 July 2016

# Meeting attendees:

Name	Position	Organisation
Jessica Picton	Project Manager	Epuron
Matthew Willmott	Project Developer	Epuron
Andrew Wilson	Construction Manager	Epuron
Renee Wall	Director	Wall Planning
Vivian Luxton	Planning Officer	Department of Infrastructure, Local Government and Planning (DILGP)
Megan Rosenberg	Principal Planning Officer	Department of Infrastructure, Local Government and Planning
Lesley MacAlpine	Town Planner (Corridor Management & Operations)	Department of Transport and Main Roads (DTMR)
Ross Young	Principal Advisor (Corridor & Land Management)	Department of Transport and Main Roads
Ian Draper	Fisheries Biologist	Department of Agriculture and Fisheries (DAF)
Felicity Laub	Senior Natural Resource Management Officer	Department of Natural Resources and Mines [DNRM] (Vegetation)
Adam Gilmour	Natural Resource Management Officer	Department of Natural Resources and Mines (Vegetation)
Stephan Mouton	Senior Land Officer	Department of Natural Resources and Mines

Name	Position	Organisation
		(State Land Asset Management - SLAM)
Kelly Scott	Land Officer	Department of Natural Resources and Mines (SLAM)
Louise Mahony	Principal Analyst	Department of Energy and Water Supply (DEWS)

### Site details

Street address: Copperfield Road, Clermont QLD 4721

Real property description: Lot 49 on CLM455;

Lot 6 on SP159756; Lot 220 on CLM102; Lot 153 on CLM230; Lot 1 on SP119121; Lot 1 on RP613907

Local government area: Isaac Regional Council

### Proposed development details

Development type: Material change of use (MCU) / Reconfiguring a lot (ROL) /

Operational work

Development description: Epuron is developing a large scale solar project with

150MW AC capacity. The project will be built in two 75MW

phases. The total fenced area of the project will be

approximately 300ha.

An electricity easement 40m wide and 850m long is proposed to cross the DNRM reserve. This would entail

clearing of ~3.5ha of vegetation on 49CLM455.

The project would be grid connected at the Ergon Clermont sub-station and would feed green electricity to the national electricity market. The project will be predominately located

on 5 lots in Clermont.

### **Meeting minutes**

### Item | Discussion and advice

### **Introduction – Jessica Picton (Epuron)**

- 1. Jessica Picton provided the following background to the project:
  - The project is in the development phase.
  - Plan is for a Solar Farm near Clermont that will feed into the National Grid
  - Planning studies are commencing soon.
  - Currently scoping the project with a view to lodge soon.

# Department of Natural Resources and Mines -State Land Asset Management – Requirements for Easement

- 2. Kelly Scott and Stephan Mouton of the Department of Natural Resources and Mines SLAM team provided the following advice regarding Lot 49 on CLM455:
  - There is an existing cleared area containing an Ergon powerline. There
    does not appear to be an existing easement registered for this powerline.
     SLAM have been in contact with Ergon regarding getting an easement
    registered.
  - In terms of the proposed easement for Epuron, the proponents will need to apply to SLAM for the easement.
    - o This will involve payment for diminution of value of the reserve.
    - o Will need to provide a figure for this and SLAM can assess and decide if the figure is adequate.
  - Epuron will need to lodge the following as part of the application in order to gain Minister's consent:
    - o A draft easement document;
    - Will need to include conditions similar to the Ergon application modified to Epuron's specific circumstances; and
    - o A survey plan.
  - SLAM can then provide consent.
  - SLAM would want to issue the approval to the same party that has gained any DEWS approvals.
  - Epuron will need to gain two easements: One for the Lease and one for the Reserve.

# **Department of Natural Resources and Mines - Vegetation**

3. Adam Gilmour and Felicity Laub discussed the following matters related to vegetation clearing:

# Phase 1 & 2 of the Proposal

- There is possible future clearing associated with a Material Change of Use for fire breaks up to 20m or 1.5x the height of the tallest adjacent tree.
- The concern is with the remnant vegetation which is to the western fence line of Lot 6 on SP159756.
- The current proposed boundary of Phase 2 passes close to that vegetation – if this boundary is within 20m or 1.5x the height of the tallest adjacent tree distance from the vegetation, then it will trigger for Clearing Vegetation for both a Material Change of Use and a Reconfiguration of a Lot (if a ROL is undertaken).
- A ROL will only trigger for the Vegetation Clearing aspect if a Lot created is less than 25ha in size. It is possible that one of the balance Lots will be this size.

### Lot 49 on CLM455

- There is an exemption under schedule 24 10(b) of the Sustainable
  Planning Regulation 2009 for vegetation clearing undertaken by an
  Electrical Entity. This will potentially apply as DEWS has indicated that
  Epuron can apply to be classified as an electrical entity for the purposes
  of Schedule 17 See item 4.
- If the exemption doesn't apply an application will be necessary. Module 8
  of the State Development Assessment Provisions (SDAP) will apply and
  need to be addressed.
- Module 8 of the State Development Assessment Provisions (SDAP) states that proposed clearing should aim at 'avoid' and 'minimise' the clearing of assessable vegetation where reasonably possible. To facilitate 'avoid' and 'minimise', proposed infrastructure could utilise existing exemptions to reduce the extent of vegetation requiring assessment under a development approval.
- There is a self-assessable code which allows 10m clearing either side of fence lines. This code may apply with the consent of the landowner. If the powerline and clearing can be placed along the northern fence line of Lot 49 on CLM455 and take advantage of the exempt 10m clearing allowed from a fence line, this would reduce the extent of vegetation clearing requiring assessment for the powerline easement.

- An offset may possibly apply. The vegetation is mapped as an endangered regional ecosystem comprising of regional ecosystem 11.4.9 which is a mid-dense regional ecosystem. Under Table 8.1.4, Performance Outcome PO8 of SDAP Module 8, the clearing would most likely exceed the allowable extent noted in Reference Table 1 pertaining to a Dense and Mid-dense regional ecosystem, which does not allow for clearing wider than 10m or greater than 0.5 hectares within endangered RE's. An offset may be required in order to meet PO8 of Table 8.1.4, SDAP Module 8.
- If an offset is required, the applicant will need to determine their offset requirements by addressing the *Environmental Offsets Act 2014*, Environmental Offsets Regulation 2014 and the current version of the Queensland Environmental Offset Policy.
- If an offset is required, the mapped regional ecosystem could be disputed by the applicant, via a Property Map of Assessable Vegetation (PMAV) application. The applicant could dispute the heterogeneous remnant polygon which is currently mapped as 'endangered' to either 'of concern' or 'least concern' remnant vegetation.
- It was discussed that DNRM would appreciate the lines being placed closer together if possible, as the clearing may be reduced if the existing clearing can be utilised. Epuron will have to investigate if this is possible and determine minimum separation distances between powerlines and negotiate this with Ergon. See attachment 1 for standard easement widths as per the Australian Standard.
- Connectivity has been determined not to be an issue. It has also been shown that as per attachment 1 – the separation distances require that the full width of the easement is required, even if placed parallel to the existing easement. Therefore there is no preference for the powerlines to be placed close together.
- DNRM have suggested including the vegetation clearing for the transmission line as part of the Material Change of Use or Reconfiguration of a Lot application- this would therefore remove the trigger for the Operational Works for vegetation clearing.
- DNRM can provide more information about offsets etc. as supporting information.

### **Department of Energy and Water Supply**

- 4. Louise Mahony discussed the likely approvals required through DEWS:
  - Louise Mahony stated that Epuron will be required to apply for a generation authority for the solar farm.

- A special approval will be required for the distribution component of the application.
- The special approval will provide Epuron with some of the powers of a distribution authority – which is required for the powerlines that are not located on the solar farm lots.
- Epuron would be classed as an electrical entity for the purposes of the solar farm under the generation authority.
- For the purposes of section 17 of the Electricity Regulation 2006 which states allowable clearing, Epuron would not be classed as an electrical entity for the distribution component of the application. This is because section 59(2) of the Electricity Regulation 2006 states that "a special approval does not make the holder an electricity entity, unless a regulation provides that the holder is to be treated as an electricity entity". Schedule 3 of the Electricity Regulation 2006 lists the special approval holders treated as electricity entities and does not specify any relevant examples for section 17.
- Epuron can apply to the department to become an electricity entity for the purposes of section 17 of the Electricity Regulation 2006, however, there is no guarantee that the regulator will approve the application.
   Additionally, the timing required for an amendment to the Regulation, if approved, could take up to 12 months.
- Louise Mahony enquired as to timeframes.
  - o Epuron responded that they will aim to begin the project early next year and begin generating power late 2017.
- The time taken for DEWS to issue licences/approvals can be 4-6 months, depending on the quality of the application material.
- Louise advised Epuron to contact DEWS when they have reached an agreement with Ergon regarding the connection.
- Schedule 7 outlines application fees for the generation authority and special authority.
- Louise stated that Epuron should contact her directly if they needed further advice regarding this. – \*Contact details for Louise are provided in the further advice section of this document\*

# **Department of Transport and Main Roads**

- 5. Ross Young and Lesley MacAlpine discussed DTMR requirements for the proposal:
  - DTMR are not concerned with the operational phase.

- With such a large scale development proposed, DTMR will need to know
  the potential impact to the State Controlled Road (SCR) network. A traffic
  impact assessment for the construction phase only is required for the
  intersection of Clermont Alpha Road / Alpha Bypass Road, Clermont
  Connection Road / Clermont Alpha Road, and Tropic Street (Clermont
  Connection Road) / Jellicoe Street in accordance with DTMR's
  Guidelines for Assessment of Road Impacts of Development.
- The application is to assess the capacity of the intersections in relation to swept path turn movements of the largest design vehicle proposed to utilise the intersection. The plans are required to be at scale and show that the vehicle can safely manoeuvre through the intersection without affecting the safety and/or efficiency of other road users. If it cannot, the application will need to provide ameliorative measures.
- The construction phase traffic impact assessment will also need to detail
  the amount of traffic and types of vehicles generated by the proposed
  development, and their direction of travel to/from the development on
  both a daily basis, and at expected peak operating hours.
- Any oversize / over mass vehicles proposed to be utilised in part of the overall development are required to obtain a separate permit approval prior to the commencement of operation on the SCR network. Details can be obtained by contacting the Department's Corridor Management Team on (07) 4951 8555.
- A Plan of Development will be required to be submitted with any future application detailing the proposed development and all proposed access points existing and/or new from any road. The applicant has stated that the only proposed access will be from Alpha Bypass Road. To avoid further conditioning, a plan of development will need to detail this.
- The plan of development to be submitted with the application should have a contour layer applied for the proposed development detailing proposed flow paths to show a no worsening impact on the SCR.
- DTMR is not concerned with road pavement impacts as the construction phase is relatively short; proposed to be 6-12 months only. Most roads in the Isaac Region already cater for heavy vehicles, and the operational phase is proposed to generate very limited traffic as the solar farm will be unmanned and operate remotely and maintenance will be undertaken intermittently via light vehicle.
- The development will trigger for the Material Change of Use and will also trigger separately if a Reconfiguration of a Lot is proposed.

# **Department of Agriculture and Fisheries**

- 6. Ian Draper provided the following advice regarding Waterway Barrier Works:

  For Lot 49 on CLM455 (Electricity Distribution Easement)
  - The proposed High Voltage (HV) transmission line will pass through Lot 49 on CLM455.
  - The subject site contains one waterway which has been mapped for its importance for fish passage in the GIS data layer Queensland Waterways for Waterway Barrier Works. This waterway is mapped as a LOW impact (green) waterway.
  - Works which result in the construction or raising of waterway barrier works, such as constructing culvert or bed level vehicle crossings along any access corridors associated with the proposed powerline easement, may require assessment under the Sustainable Planning Act 2009 (SPA).
  - Generally, works on LOW impact waterways can be undertaken in compliance with DAF Self Assessable Codes, which avoid the necessity to lodge a Development Application through SARA. The relevant Self-Assessable Codes in this instance are:
    - o Culverts: https://www.daf.qld.gov.au/\_\_data/assets/pdf\_file/0018/54720/culv ert-code-WWBW01.pdf
    - o Bed Level Crossings: https://www.daf.qld.gov.au/\_\_data/assets/pdf\_file/0004/70744/bed -level-code.pdf
  - Proponents are requested to submit pre-works notification prior to starting work, and comply with the code standards during construction.

### For Solar Panel Array Field

- The proposed solar panel array is proposed over several lots, the footprint of which appears to coincide with potentially three (3) LOW impact (green) waterway, and one (1) MODERATE impact (amber) waterway, shown on the GIS data layer Queensland Waterways for Waterway Barrier Works.
- Bulk earthworks to create a platform for the proposed solar array, which
  includes the filling of mapped waterways would be assessable
  development under SPA. Any proposal would require significant
  justification in terms of the Performance Outcomes identified in Module

5.2 of the SDAP.

- The upstream hydrology indicates that some treatment of inflows would need to be addressed. Any proposal which includes the diversion of waterways is also assessable development under SPA.
- Such works may result in a Significant Residual Impact due to the permanent loss of fisheries habitat, which may require consideration of an Environmental Offset.
- The proponent may wish to consider avoiding undertaking earthworks within mapped waterways (within the bank full width), which may avoid the requirement for Development Assessment under SPA.
- Any proposed solar array which may span across a mapped waterway
  may be considered in the same fashion as a "bridge" in the DAF
  Factsheet "What is not a waterway barrier work?", provided the structure
  can meet the minimum requirements.
- https://www.daf.qld.gov.au/fisheries/habitats/policies-and-guidelines/fishhabitat-factsheets
- Generally for LOW and MODERATE impact waterways, "bridges" are not considered assessable development under SPA, provided the "abutments" (i.e. earthworks) do not extend into the bank full width of the waterway, and any support piles are not located within the low-flow channel of the waterway.
- Any internal access paths between the solar arrays which may require works within a mapped waterway could be undertaken in compliance with DAF Self Assessable Codes, which avoid the necessity to lodge a Development Application through SARA. The relevant Self-Assessable Codes in this instance are:
  - o Culverts: https://www.daf.qld.gov.au/\_\_data/assets/pdf\_file/0018/54720/culv ert-code-WWBW01.pdf
  - Bed Level Crossings: https://www.daf.qld.gov.au/\_\_data/assets/pdf\_file/0004/70744/bed -level-code.pdf
- Proponents are requested to submit pre-works notification prior to starting work, and comply with the code standards during construction.

# Department of Infrastructure, Local Government and Planning

- 7. Vivian Luxton from DILGP clarified the following regarding the application:
  - The potential fees and triggers for the application were discussed and proposed. Note that the fees have been updated to reflect fee changes

# Item Discussion and advice that came into effect on 8 July 2016. **DNRM Vegetation Clearing Triggers** Schedule 7, table 2, item 5 – Operational Works - Clearing Vegetation (concurrence agency) o Fee 7A part 2, item 19 □ c) i) \$3,024.00 Schedule 6, table 3, item 2 – Operational Works - Clearing Vegetation (assessment manager) o Fee 7A, part 1, item 4 □ c) \$3,024.00 Schedule 7, table 3, item 10 – Material Change of Use - Clearing Vegetation o Fee 7A, part 2, item 20 = \$6,135.00 Schedule 7, table 2, item 4 – Reconfiguring a Lot - Clearing Vegetation o Fee 7A, part 2, item 18 = \$6,135.00 Department of Transport and Main Roads Triggers Schedule 7, table 3, item 1 – Material Change of Use - State Controlled Road o Fee 7A, part 2, item 4 a)i) = \$1,511.00 Schedule 7, table 2, item 2 – Reconfiguration of a Lot - State Controlled Road o Fee 7A, part 2, item 2 a) = \$1,511.00 Department of Agriculture and Fisheries Triggers Schedule 7, table 3, item 29 – Waterway Barrier Works (concurrence agency) o Fee 7A, part 2, item 33: ☐ If in a low risk (green) waterway = \$3,024.00 ☐ If in a medium risk (orange) waterway = \$6,135.00 Schedule 6, table 3, item 11 – Waterway Barrier Works (assessment) manager) o Fee 7A, part 1, item 13: □ If in a low risk (green) waterway = \$3,024.00If in a medium risk (orange) waterway = \$6,135.00

It is considered that the above summary is an accurate record of the matters discussed at the pre-lodgement meeting.

The following information is provided as further advice prepared subsequent to the meeting.

### **Further advice**

Item	Further advice		
Department of Environment and Water Supply			
1.	Contact Details for Louise Mahony:		
	o Phone (07) 3199 4818		
	o Email: louise.mahony@dews.qld.gov.au		
	o Or EnergyRegulation@dews.qld.gov.au		

If you require any further information, please contact Vivian Luxton, Planning Officer, on (07) 4898 6815 who will be pleased to assist.

Yours sincerely

Patrick Zith

Patrick Ruettjes

Manager (Planning) - Mackay Isaac Whitsunday Regional Office

### Attachment 1:

### **EASEMENT WIDTH & ROUTE LENGTH**

### Easement Width

The width of an easement required for a power line is determined in accordance with the principles established in the Australian Standard for Overhead Line Design (AS7000).

Required widths take into account line design and electrical safety clearances and vary for different voltages, conductor and structure types. If the easement is needed for more than one line, the width is increased by the necessary separation distances between each line.

Standard easement widths and separation distances are detailed in the following table:

Voltage	Easement Width	Separation Distance Between Multiple Lines
110/132kV	40m	40m
275kV	60m	40m
330kV	60m	40m
500kV	70m	40m

These distances may be varied as appropriate to address location-specific factors. As an example, unusual span lengths due to extreme topography or airport height restrictions may give rise to quite different swing out considerations than for a standard line design.

Separation distances may be reduced where local constraints exist and/or where (helicopter) access is not part of the operational and maintenance strategy.

At times it is appropriate to acquire a double width easement (suitable for two adjacent lines) to accommodate an upcoming development need while at the same time providing for a longer term strategic need.

There is strong support from local government and community groups for location of power lines adjacent one another rather than being separated in terms of lowering overall environmental impact.

Securing adequate easement width for a second line at the time of doing so for the first is essential in facilitating this lower impact outcome.