

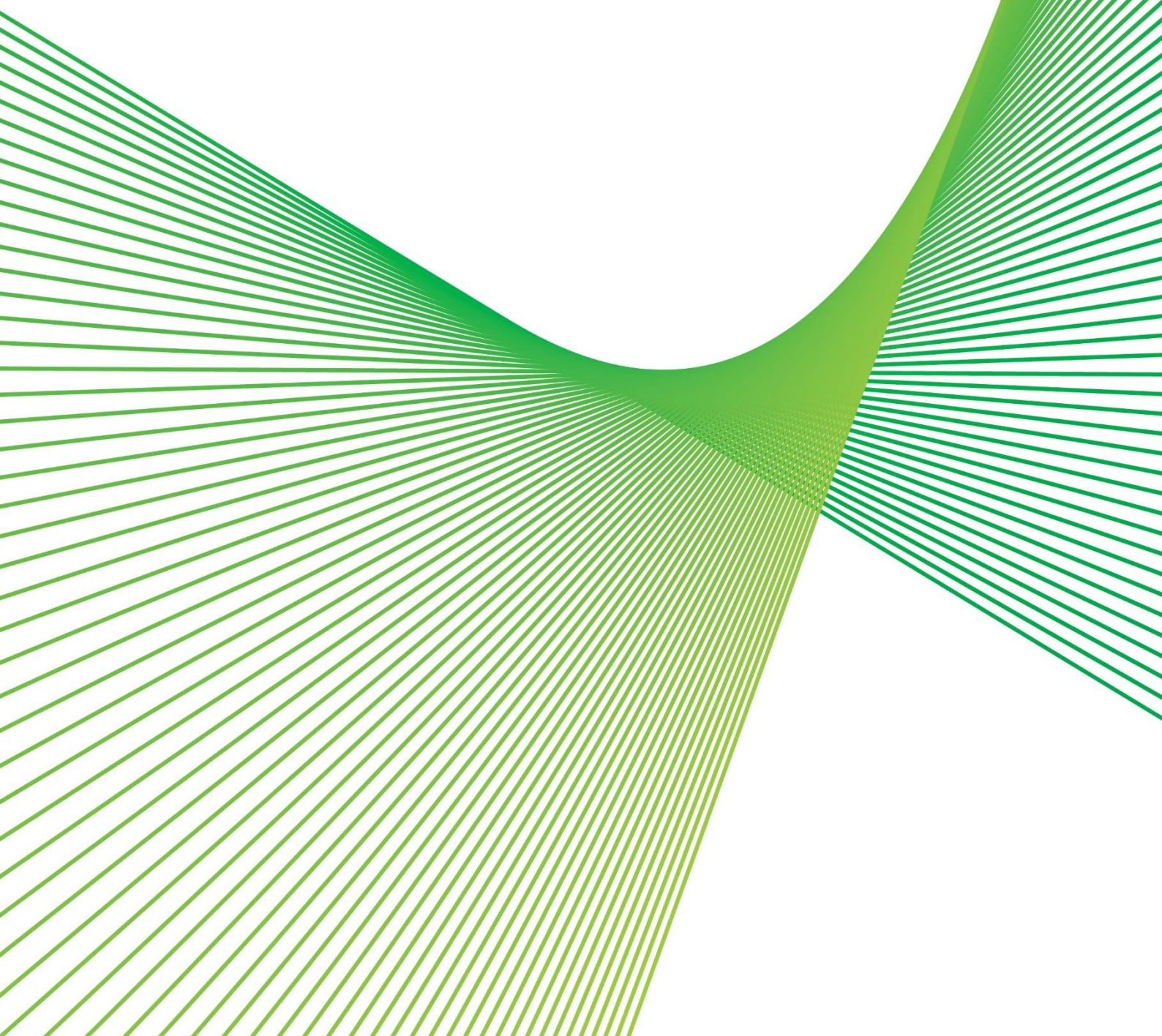
# HumeLink Market Sounding Report

HumeLink

May 2022

**CONFIDENTIAL INFORMATION**

**FINAL**



## Acronyms, Abbreviations and Definitions

Acronym / Abbreviation	Definition
<b>AEMO</b>	Australian Energy Market Operator
<b>Commonwealth</b>	Commonwealth of Australia (e.g. the federal government)
<b>D&amp;C</b>	Design and Construct contract form
<b>ECI</b>	Early Contractor Involvement
<b>ECI Delivery Stage</b>	the ECI Delivery Stage of the Procurement Process as described in the PID
<b>EIS</b>	Environmental Impact Statement
<b>EPBC</b>	Environment Protection and Biodiversity Conservation Act
<b>EPC</b>	Engineering, Procurement and Construction contract form
<b>HumeLink</b>	The project to which this Market Sounding relates, and which is further detailed in section 1.2.
<b>IED</b>	Intelligent Electronic Device
<b>Market Sounding</b>	The market sounding process for HumeLink, which is separate and standalone to the proposed procurement process
<b>NDA</b>	Non-Disclosure Agreement which was required to completed and submitted by all participants as part of the Market Sounding registration process.
<b>NSW</b>	New South Wales
<b>PID</b>	Project Information Document included at Appendix C.
<b>Registration Form</b>	Market Sounding registration form which was required to completed and submitted by all participants as part of the Market Sounding registration process.
<b>ROI</b>	Registration of Interest
<b>Snowy 2.0</b>	An expansion of the Snowy Hydro Scheme involving pumped hydro
<b>Snowy Hydro Scheme</b>	A hydroelectric generation scheme consisting of nine power stations, 16 major dams, 80 kilometres of aqueducts and 145 kilometres of interconnected tunnels
<b>STATCOM</b>	Synchronous compensator
<b>SVC</b>	Static VAR compensator
<b>Transgrid</b>	NSW Electricity Networks Operations Pty Limited (ACN 609 169 959) as trustee for NSW Electricity Networks Operations Trust (ABN 70 250 995 390) trading as "Transgrid".
<b>Q1, Q2, Q3, Q4</b>	A reference to a calendar year quarter
<b>QLD</b>	Queensland
<b>Questionnaire</b>	The questionnaire document contained in the PID.
<b>VIC</b>	Victoria

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# 1. Introduction

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## 1.1. Report Overview

This report provides:

- an outline the HumeLink Market Sounding (the “Market Sounding”) process undertaken for Transgrid;
- an summary of the key feedback received from Market Sounding participants; and
- recommendations with respect to refining and finalising key aspects of the HumeLink Delivery Procurement Strategy, with consideration of the feedback received from the Market Sounding.

The Market Sounding was undertaken with consideration as to feedback obtained from the informal market sounding for HumeLink undertaken in late 2021 and early 2022, and the recommendations of the draft Delivery Procurement Strategy report dated 22 February 2022 (“Delivery Procurement Strategy”).

## 1.2. Project Overview

The Australian energy landscape is transitioning to a greater mix of low-emission renewable energy sources, such as wind and solar, together with traditional energy sources, and the national electricity grid is responding to rapidly evolve and enable this.

HumeLink has been identified as a priority project for the AEMO and the Commonwealth and NSW Governments to enable this transition.

HumeLink will address energy cost, security and reliability issues by providing 360 kilometres of new 500kV high voltage transmission lines designed to reinforce the NSW Southern Shared Network and connections to the existing Snowy Hydro Scheme and other new and existing regional generation assets.

The objectives of HumeLink are to:

- provide network reliability in NSW by firmly connecting Snowy 2.0 and other new generation in southern NSW to the network, and manage the shortfalls of the progressive retirement of coal-fired generation;
- facilitate greater access to lower cost generation to meet demand in major load centres;
- deliver additional capacity for new generation (primarily from renewables) in southern NSW, an area which has recognised potential for high-quality wind and solar power generation;
- assist greater sharing of energy between the States of NSW, QLD, ACT and VIC;
- unlock the full capacity of the expanded Snowy Hydro Scheme;
- accelerate the entry of more renewable energy to the market, and supporting Australia’s aspirations for emissions reduction targets;
- create more than 1,000 construction jobs during delivery; and
- enhance economic activity in regional NSW and bring opportunities for involvement and benefits for local communities, along the route.

The target date for energisation of HumeLink is targeted for the end of 2026.

Figure 1 indicates the HumeLink study corridor and the indicative 500kV double circuit transmission routes.

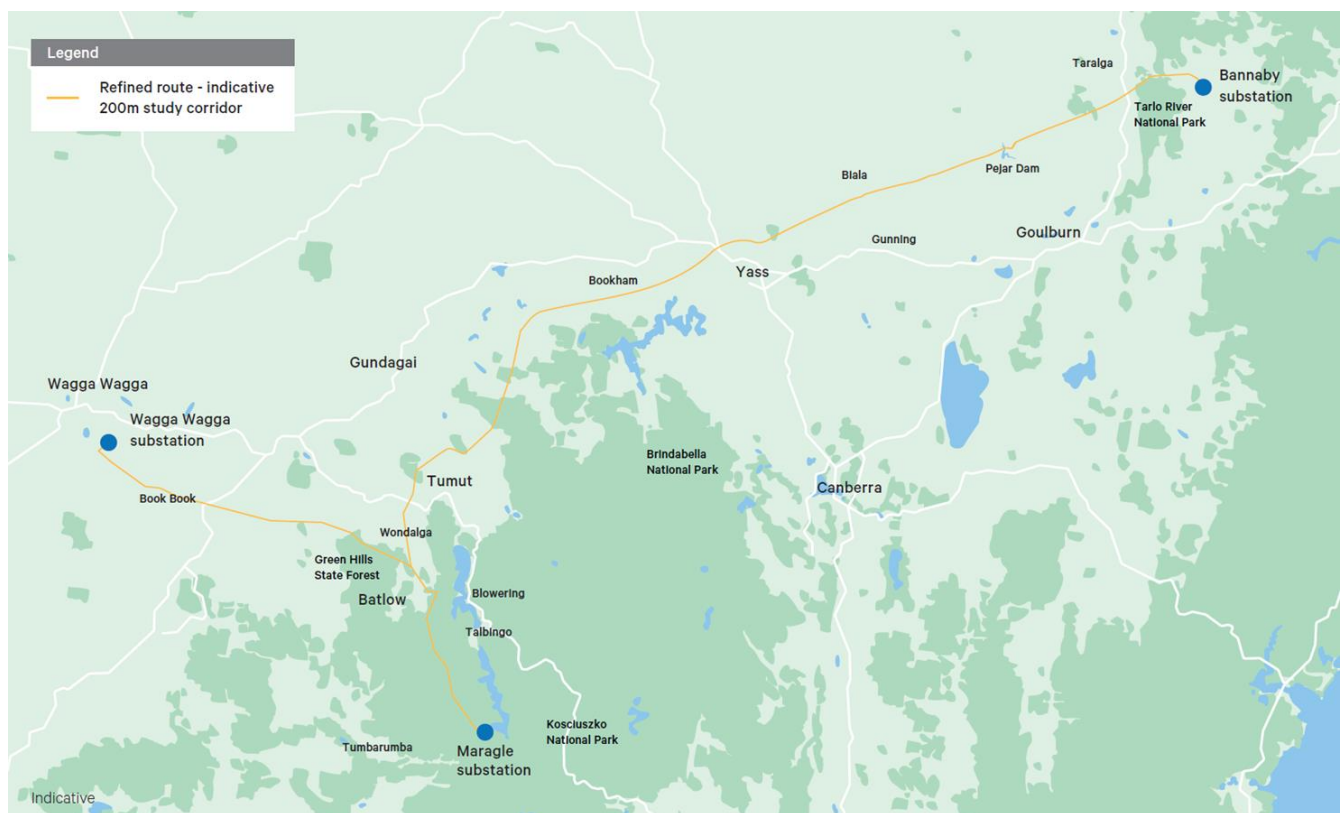


Figure 1 HumeLink Study Corridor

### 1.2.1. Project Scope

The scope of the HumeLink project comprises of both transmission line and substation works.

The transmission line scope will include the design and construction of:

- 230 kilometres (approximately) of 500kV double circuit transmission line from the existing Bannaby 500kV Substation to a location in the vicinity of Gilmore Valley;
- 50 kilometres (approximately) of 500 kV double circuit transmission line from the Wondalga location to the new Maragle 500kV Substation;
- 80 kilometres (approximately) of 500 kV double circuit transmission line from the Wondalga location to the new Gugaa 500kV Substation; and
- 15 kilometres (approximately) of 330kV double circuit transmission line from new Gugaa 500/330kV Substation to existing Wagga 330kV Substation

The substation works scope will include the design and construction of:

- extending and augmenting the existing Bannaby 500/330kV Substation to accommodate the additional 500kV double circuit transmission lines;
- extending and augmenting the existing Wagga Wagga 330kV Substation to accommodate the additional transmission 330kV double circuit transmission lines;

- a new Maragle 500kV substation including three new 500/330/33kV 1500 MVA transformers and provision for the additional 500kV double circuit transmission lines; and
- a new Gugaa 500/330kV Substation in the vicinity of Wagga Wagga Substation including two new 500/330/33kV 1500 MVA transformers.

### 1.3. Previous Market Engagement

An informal market sounding for HumeLink was undertaken in late 2021 and early 2022. This informal process was used to gather feedback from the construction market and to gain initial insights to various procurement and packaging strategies.

The following considerations were discussed at the informal market sounding:

- Views on tender cost reimbursement during ECI;
- Productivity rates for the transmission lines;
- Contract value threshold of \$1B;
- Preference for an Alliance or a collaborative contracting approach, including ECI; and
- Risk allocation of the environmental approvals including EPBC, and the property / site access.

The entities that participated in the informal market sounding are listed in Table 1 below.

Table 1 Informal Market Sounding Participants

Entity	Likely to Progress to EOI
Zinfra	Yes
Downer	Yes
CPP / Quantra	Yes
UGL / CPB	Yes
Acciona	Yes
PLP / Bechtel	Yes
KEPCO	No
Seymour Whyte	TBC
Secure Energy	TBC

The initial findings from the Informal Market Sounding are summarised in section 8.4 of the Delivery Procurement Strategy and were used to inform the formal Market Sounding process summarised in this report.

### 1.4. Need for Formal Market Sounding

The Delivery Procurement Strategy identified the need for further market engagement through a formal Market Sounding process to determine the capacity and capability of the market to participate in the HumeLink procurement process and to obtain feedback regarding key aspects of the HumeLink Delivery Procurement Strategy.

The key outcomes from the formal Market Sounding will inform the finalisation of the HumeLink Delivery Procurement Strategy prior to the commencement of the procurement process.

## 2. Formal Market Sounding Process

### 2.1. Objectives

The key objectives of the formal Market Sounding process was to:

- inform the market about key aspects of HumeLink, including:
  - the proposed project program and delivery strategy; and
  - it's current regulatory and planning status;
- seek feedback on opportunities to improve HumeLink's project outcomes, including the proposed procurement process, proposed delivery strategy and other key delivery and commercial matters; and
- seek feedback on the market's capability and needs for participating in the procurement process.

### 2.2. Market Sounding Advertisement Process

The formal Market Sounding process was targeted at bona-fide delivery contractors and key suppliers capable of undertaking a significant role in the delivery of HumeLink.

To raise awareness of the Market Sounding process and ensure an appropriate level of industry participation, the following advertising approach was implemented:

- targeted invitation sent to 32 organisations in the energy market (including delivery contractors and key suppliers) known to Transgrid and members of the HumeLink project team. The full list of targeted entities contacted by Transgrid is provided in Appendix A; and
- advertisement on the Transgrid website and LinkedIn inviting contractors, engineering and design firms and key suppliers to participate in the Market Sounding process.

### 2.3. Process Overview

The Market Sounding process was undertaken from March to April 2022. A summary of the key activities and dates are shown in Table 2.

Table 2 Market Sounding Process

Market sounding activity	Date
Commence registration process for the Market Sounding	21 March 2022
Registration process closed	8 April 2022
Transgrid notifies entities selected to participate in the Market Sounding	21 March – 8 April 2022
Project information distributed (includes questionnaire and other collateral information)	4 April – 8 April 2022
Market sounding briefing session with participants (online)	12 April 2022
Questionnaire responses submitted to Transgrid	14 April 2022
One-on-one sessions held with select participants to clarify specific aspects of their responses (online).	2 May 2022 – 3 May 2022
Market Sounding Findings Report	6 May 2022

Further details of each of the key Market Sounding activities are provided in the following sections.



### 2.3.1. Registration Process

All entities interested in participating in the Market Sounding were required to register their interest through a registration process.

The purpose of this registration process was to ensure that participation in the Market Sounding process (which included access to confidential information) was limited to appropriate entities. Selection of the participants was determined using the following criteria (which successful participants were required to satisfy):

- be a bona fide **delivery contractor** who has the capabilities and experience to play a significant role in a consortium, or to act as a head contractor in its own right, to deliver HumeLink; or
- be a bona fide **engineering design firm, delivery subcontractor or supplier** that could play a significant role in the delivery of HumeLink.

All interested entities were required to submit the following registration documents as part of the registration process:

- a completed Registration Form to demonstrate that the entity met the above participation criteria; and
- a duly executed Non-Disclosure Agreement (NDA).

A total of 18 entities registered to participate in the Market Sounding process, and all entities were assessed to be successful and subsequently invited to participate in the Market Sounding process activities.

A copy of the registration documents is provided in Appendix B.

#### 2.3.1.1. Market Sounding Participants

Of the 18 entities who successfully registered, 16 attended the briefing session and 15 submitted a Questionnaire response. Details are summarised in Table 3 below.

Table 3: List of Market Sounding Participants

Participant Industry Category	Participant Organisation	Webinar Attendance	Submitted Questionnaire
Delivery Contractor	Acciona	✓	✓
	Bechtel/PLP	✓	✓
	UGL/CPB	✓	✓
	Downer	✓	✓
	Elecnor	✓	✓
	John Holland	✓	✓
	CPP/Quanta	✓	✓
	Zinfra	✓	✓
	Wood PLC	✓	✓
	Clough	✓	No
	Ferrovial	✓	No

	Samsung C&T	✓	No
Engineer/Supplier	SNC-Lavalin	✓	✓
	Siemens Energy	✓	✓
	Hatch	✓	✓
	GE Energy	✓	✓
	Jacobs	No	✓
	Hitachi	No	✓

In addition to the above, Transgrid also contacted 15 other targeted entities (as outlined in section 2.2) who declined to participate in the Market Sounding. These entities are identified in Appendix A.

### 2.3.2. Project Information Document

To facilitate the Market Sounding process, all participants were provided with a Project Information Document (**PID**) that set out key details regarding the current status of the project including the project background, scope, proposed delivery and contracting approach, program and procurement process. The PID included a Questionnaire that set out the key areas where Transgrid sought feedback from the market.

A copy of the PID (including the Questionnaire) is included in Appendix C.

### 2.3.3. Briefing Presentation

The Market Sounding briefing presentation was presented to participants on 12 April 2022. This presentation provided an overview of Transgrid and the HumeLink project including the background and scope. An overview of the Market Sounding process, details of the proposed procurement process and key project and delivery milestones were also provided.

The Market Sounding briefing presentation included a question and answer component that provided the opportunity for participants to raise questions. A total of 41 people attended the Market Sounding briefing presentation and the presentation. The list of attendees and questions asked are included at Appendix D.

### 2.3.4. Follow up (one-on-one) meetings

Following the submission of the Questionnaire responses by participants and Transgrid's initial review, a series of one-on-one meetings was arranged with Acciona, Bechtel/PLP and Downer to clarify specific areas of their response to the Questionnaire.

It was determined that one-on-one sessions were not required from the other participants as their responses were considered to be suitably comprehensive and did not include any issues that required further clarification at this Market Sounding stage.

There were three follow up (one-on-one) meetings that took place on 2 and 3 May 2022. All meetings were conducted virtually using Webex and the key meeting details are outlined in the tables below. The feedback received at the one-on-one sessions have been incorporated in the key findings and recommendations outlined in section 3.

██████████

██████████ 4 ██████████ follow up meeting

Attendee	Role	Entity
██████████	Project Director	Transgrid
██████████	Commercial Manager	Transgrid
██████████	Transaction Lead	ConnellGriffin
██████████	Business Development Sustainable Infrastructure	██████████
██████████	Project Director	██████████

Key matters discussed:

- Procurement Program – Clarification sought regarding the feedback that a 4 week team mobilisation period would be required between announcement of ECI participants and the commencement of the ECI Delivery Phase; and
- Bid Cost Contribution – Clarification sought regarding whether a partial bid cost contribution or capped amount would influence participation in the procurement process.

██████████

Table 5 ██████████ follow up meeting

Attendee	Role	Entity
██████████	Project Director	Transgrid
██████████	Commercial Manager	Transgrid
██████████	Delivery and Integration Manager	Transgrid
██████████	Transaction Lead	ConnellGriffin
██████████	Transmission Manager	██████████
██████████	Manager of Business Development	██████████

Key matters discussed:

- Delivery Strategy – Clarification sought regarding feedback that each participant would not be interested in the delivery Option 3 (Two Packages split East and West); and
- Bid Cost Contribution – Clarification sought regarding whether a partial bid cost contribution or capped amount would influence participation in the procurement process.

██████████

Table 6 ██████████ follow up meeting

Attendee	Role	Entity
██████████	Project Director	Transgrid
██████████	Commercial Manager	Transgrid
██████████	Delivery and Integration Manager	Transgrid
██████████	Senior Legal Counsel	Transgrid
██████████	Transaction Lead	ConnellGriffin

██████████	Transaction Advisor	ConnellGriffin
██████████	Business Development Manager	██████████
██████████	Pre-Contracts Manager, Power Systems	██████████

Key matters discussed:

- Contact Form Clarification sought regarding feedback that an EPC contract form would reduce interest in participating in the procurement process; and
- Bid Cost Contribution – Clarification sought regarding whether a partial bid cost contribution or capped amount would influence participation in the procurement process.

### 3. Key Findings and Recommendations

#### 3.1. Delivery and Packaging Strategy – Overall Market Feedback

As part of the Market Sounding, Transgrid sought feedback from the market regarding its level of interest to participate in a procurement process based on the following three delivery and packaging options shortlisted in the Delivery Procurement Strategy:

- Delivery Option 1: Single Package;
- Delivery Option 2: Two Packages (Split by key scope: Substations and Transmission Lines); and
- Delivery Option 3: Two Packages (Split by geographic area: East and West).

The key findings from the participant’s responses are summarised below and outlined in further detail in the following sections.



Figure 2 Packaging Strategy Feedback



### 3.1.2. Delivery Option 1 – Single Package

Based on the participant's response and stated level of interest to the shortlisted Delivery Options, Delivery Option 1 was assessed to be the market's **2<sup>nd</sup> ranked Delivery Option**, closely following Delivery Option 3.

A summary of key feedback is provided below:

- Six participants ( [REDACTED] ) confirmed an interest in bidding under the single package option as follows:
  - Five participants ( [REDACTED] ) indicated that they would likely bid under this Delivery Option 1 as part of a consortium due to the expected high contract value. Feedback from the market indicated that due to balance sheet risks and complexity, a package contract value over \$1B would likely require the formation of a consortium.
  - One participant ( [REDACTED] ) indicated that it would bid for this package as a single entity. [REDACTED] indicated that it did not have a maximum contract value or constraint that would limit its ability or willingness to bid.
- One participant ( [REDACTED] ) indicated that it was not interested in a single package option. [REDACTED] indicated that it had the capability to deliver a single package however this would unacceptably limit its ability to pursue other projects, and it believed the large size would impact on overall value-for-money and risk.
- Two participants ( [REDACTED] ) were not interested in the single package option due to insufficient available resources, and the expected the size of the contract to exceed their corporate risk appetite.

#### Delivery Option 1 – Key Benefits:

The following key benefits were identified with respect to Delivery Option 1:

- Transgrid only required to manage one delivery contractor, with associated potential benefits from lower overhead costs, economies of scale, and mitigation of interface risk.

#### Delivery Option 1 – Disadvantages:

The following key disadvantages were identified with respect to Delivery Option 1:

- A single high-value and geographically disperse contract presents a risk to Transgrid that the single contractor becomes insolvent, performs poorly, or runs significantly behind program.
- There will be no, or limited, backup for design, labour workforce, training, procurement, or sourcing.
- May limit level of market interest due to the large contract size.
- Will force most bidders to form consortiums, which could be considered to be both a benefit (improves overall financial capacity of the contractor) and a disadvantage (risk that the joint venture partners do not work effectively together).

### 3.1.3. Delivery Option 2 – Two Packages (Substations and Transmission Lines)

Based on the participant's response and stated level of interest to the shortlisted Delivery Options, Delivery Option 2 was assessed to be the market's **3rd ranked Delivery Option**.

Delivery Option 2 comprises of a separate contract package for substations (2A) and transmission lines (2B).

With respect to the substation package:

- Five participants (████████████████████) confirmed an interest in bidding;
- Two participants (██████████) did not prefer this option due to the perceived high level of interface risks and coordination works required at the interface sites; and
- Two participants (████████████████████) were not interested in the single substation package.

With respect to the transmission line package:

- Five participants (████████████████████) confirmed an interest in bidding for the transmission lines package option.
- Three participants (████████████████████) indicated that they did not prefer this option for the following reasons:
  - ██████████ highlighted that this option presented a high level of perceived interface risk with respect to design and construction works.
  - ██████ indicated they did not have the capability to perform this scope, but suggested potential interest from their head company ██████.
- One participant (██████) was not interested due to insufficient resources to the deliver the package.

#### Delivery Option 2 – Key Benefits:

The following key benefits were identified with respect to Delivery Option 2:

- Separating substations from transmission lines provides Transgrid with the ability to create a natural separation of works to manage contractors through specific discipline leads whom are experts in their fields. This reduces risk as the disciplines leads from both organisations are often best at identifying and mitigating risks.

#### Delivery Option 2 – Disadvantages:

The following key disadvantages were identified with respect to Delivery Option 2:

- Creates potential high interface risk due to the requirement for two separate design teams, specifications, and standards. The interface between the transmission line and substation packages would need to be closely managed.
- Potential complexity relating to site access and control at the interface point. Will need to determine the party in control of the site and the project coordination of who may have rights to access the site during the construction stage if both parties need to use the shared areas at the same time.
- Coordination of outages, managing two contractors in the same area at the same time along with landowners and the community can be a challenge compared to having to manage separate contractors in separate regions (e.g. Package 3A & 3B).



### 3.1.4. Other Feedback

In addition to the details outlined above, the participants also provided the following feedback relating to the delivery and packaging strategy:

- [REDACTED]: Indicated that it was comfortable with all shortlisted Delivery Options. Noted that they would need to form a consortium if the expected contract value exceeds \$1B.
- [REDACTED]: Preferred larger packaging options (due to perceived interface risk and efficiency benefits). [REDACTED] would likely form a consortium with [REDACTED], unless the package was sufficiently small in which case [REDACTED] may respond as a single entity.
- [REDACTED]: Would participate in Package 1, 3A and 3B in a consortium (partners to be confirmed).
- [REDACTED]: Preference is for larger sized packages and to deliver the project as part of a consortium. It has not yet disclosed its indicative consortium members, although reference is made to the inclusion of [REDACTED] subsidiaries for certain parts of the work, such as [REDACTED].
- [REDACTED]: Preference and recommendation (from [REDACTED] perspective rather than [REDACTED] is that the packages are broken up into even smaller packages that what has been outlined. This is to address potential issues relating to resource constraints. At the one-on-one sessions, [REDACTED] subsequently clarified that it was comfortable and had the capacity and capability to bid for both Package 3A and 3B as a single entity.
- [REDACTED]: Preference is for two contractors to be appointed with an overarching step-in regime where KPIs aren't met (i.e. one contractor takes over work of other). Alternatively, if two contractors appointed, an option for Transgrid is to reserve small portion of transmission line works which would then be issued as bonus to the better performing contractor.
- [REDACTED]: Intends to bid as a single entity, so would prefer the options allowing smaller packages.
- [REDACTED]: Not capable of delivering the transmission packages and so would need to form part of a consortium if transmission and substation work is not split.

### 3.1.5. Delivery Strategy – RECOMMENDATIONS

#### Recommendation A1: Proceed with Delivery Option 3 (Two Package – Geographic Split)

With consideration of the recommendations set out in the Delivery Procurement Strategy and the participant feedback in this Market Sounding, it is recommended that Transgrid proceeds with **Delivery Option 3 (Two Package – Geographic Split)** for HumeLink.

This recommendation is based on the following:

- The Market Sounding has indicated that **Delivery Option 3 (Two Packages – Geographic Split)** is the market's preferred Delivery Option. The market's feedback and advantages and disadvantages of this option are outlined in section 3.1.1.
- It is acknowledged that the draft Delivery Procurement Strategy recommended a two-package approach based on a substation and transmission line split (Delivery Option 2). However:
  - Market feedback has indicated that this is the least preferred approach with the lowest level of market interest; and
  - The draft Delivery Procurement Strategy also identified **Delivery Option 3** as a feasible option that was ranked second, marginally behind Delivery Option 2 and tied with Delivery Option 1.

**Recommendation A2: Maintain flexibility to proceed with Delivery Option 1 (Single Package) as part of the procurement process**

It is recommended that Transgrid retains flexibility throughout the procurement process to be able to procure a single contractor to deliver HumeLink, subject to an assessment of value for money, including risk. This could be achieved by undertaking the following approach:

- At the conclusion of the ECI Delivery stage, Transgrid require separate binding offers from each ECI contractor to deliver the East package or the West package; and
- In addition to the above, the procurement process enables ECI contractors to submit an offer that to deliver HumeLink as a single package. This must only be submitted as a tender option, in addition to the separate offers for the East package or the West packages, and the ECI contractor would be required to demonstrate how it would offer value-for-money and better overall project outcomes for Transgrid under the single package.

This approach will provide flexibility to proceed with Delivery Option 1 (Single Package) if assessed by Transgrid to represent the overall best value-for-money and the optimal project outcomes.

## 3.2. Program and Delivery Matters

The following section summarises the key feedback provided by participants regarding key program and delivery matters, and provides recommendations based on consideration of this feedback. Appendix E provides further details on the participant feedback on program and delivery matters.

### 3.2.1. Program – Market Feedback

As part of the Market Sounding, participants were provided with the following details outlining the key target milestones for HumeLink.

Table 7: Key Project Milestones

Key Milestone	Target Date
Submit scoping report to DPIE	Q1 2022
Commence Market Sounding Process	Q1 2022
Commence Expression of Interest (EOI) Phase	Q2 2022
Commence Early Contractor Involvement (ECI) Procurement Phase	Q3 2022
Initial CPA submission	Q1 2022
Initial CPA determination	Q2 2022
Initial FID approved	Q2 2022
Commence Early Contractor Involvement (ECI) Phase	Q4 2022
Submit final EIS to DPE for public exhibition	Q1 2023
Commence Request for Tender (RFT) Phase	Q2 2023
Planning Approval determination	Q4 2023
Target for Contract Award	Q4 2023
Instruct Early Works (SP-1)	Q4 2023
Final CPA submission	Q4 2023
Final CPA determination	Q4 2023
Final FID approved	Q4 2023
Instruct Construction Works (SP-2) and grant possession of site	Q2 2024
Substations complete	Q4 2026
Transmission line complete	Q4 2026

Generally, feedback from the participants indicated that the key project milestones were achievable.

Some activities identified by the participants to present a risk to the program include:

- Obtaining key approvals in a timely manner specifically with respect to the EIS, National Park, landowners and key stakeholders;
- Tower spotting logistics;
- Approvals of access roads;
- Geotechnical and geology assessment at tower locations;
- Land acquisitions; and
- Availability of skilled resources across the whole value chain.

Some opportunities identified by the participants to achieve program efficiencies include:

- Potential for Transgrid to identify (with the ECI contractors) long lead time items and to directly procure those items for the contractor;
- Opportunities associated with on-shore and off-shore pre-casting and pre-fabrication; and
- Allow ECI contractors to request additional site investigation works that would reduce project risk and optimise the program/critical activities.

### 3.2.2. Delivery Matters – Market Feedback

As part of the Market Sounding, participants were also invited to provide initial feedback on key matters relevant to the delivery of HumeLink.

Key delivery challenges for HumeLink identified by the participants include:

- obtaining ‘social license’ to construct the transmission lines;
- competition for skilled resources, services, and materials across the whole value chain;
- supply chain constraints, particularly with respect to managing rising escalation;
- alpine terrain and associated weather constraints may impact productivities (e.g. line stringing);
- potential for cultural and heritage approvals to result in disruption or delays; and
- ground conditions (including managing any naturally occurring asbestos along the alignment).

Key opportunities for HumeLink identified by the participants include:

- early engagement with the contractors on the required design inputs and studies to minimise iterations/rework, project risk and uncertainty.
- opportunities to optimise staging of works to enable early completion of portion of works (e.g. early connection of Bannaby and Wagga);
- early procurement and commitment of long lead time materials and equipment; and
- appropriate allocation of risk to maximise value and likelihood of success.

### 3.2.3. Program and Delivery Matters – RECOMMENDATIONS

#### **Recommendation B1: Implement the ECI as part of the procurement process**

The potential program and delivery related risks and opportunities identified by participants appears to support the implementation of ECI as part of the procurement process. The ECI Delivery stage will provide opportunities for Transgrid and the shortlisted participants to discuss risks and opportunities, and to collaboratively develop solutions to deliver better value-for-money and overall project outcomes for HumeLink.

#### **Recommendation B2: Ensure key issues are identified and discussed early in the ECI Delivery stage**

To obtain maximum benefit, and to enable sufficient time to fully realise any worthwhile opportunities, key issues must be identified as early as possible during the procurement process. Accordingly, the ECI Delivery stage program should be structured to include early ECI workshops dedicated to these matters, with subsequent workshops and deliverables scheduled to allow solutions to be further developed and refined prior to tender submissions.

### 3.3. Contract and Commercial Matters

#### 3.3.1. Contract Form – Market Feedback

As part of the Market Sounding, participants were asked provided feedback on whether the shortlisted contract forms, Design and Construct (D&C) and Engineer Procure Construct (EPC), would impact their level of interest in participating in the HumeLink procurement process.

Figure 3 provides a summary of the participant’s feedback. Although some participants indicated a preference for either a D&C or EPC contract form, only one participant (██████) indicated that the selection of one contract form over the other would impact on their level of interest in HumeLink.

Although some participants indicated a preference for either a D&C or EPC contract form, only one participant (██████) indicated that the selection of one contract form over the other would materially impact on their level of interest in HumeLink.

██████ indicated that it would not be interested in an EPC contract that included provisions for ‘functional performance’. At the one-on-one session with ██████ (held on 2 May 2022), Transgrid clarified its intended approach with respect to the technical specifications under either a D&C or EPC contract form. The technical specifications are anticipated to include both prescriptive and functional requirements (including requirements with respect to design life, testing and commissioning). However, Transgrid does not intend to pass down the full network requirements and performance obligations to the contractor. ██████ appeared to be satisfied with this response.

Notwithstanding the preferences in contract form identified by some participants, the general consensus was that the market would be open to either contract form. Ensuring a fair and appropriate commercial risk allocation was considered of higher importance rather than the nomenclature of the contract form. Further feedback with respect to the commercial risk allocation is provided in section 3.3.2.

**LEGEND:**

Interested (Preferred)	Interested	Not interested (but could potentially participate in certain circumstances)	Not interested
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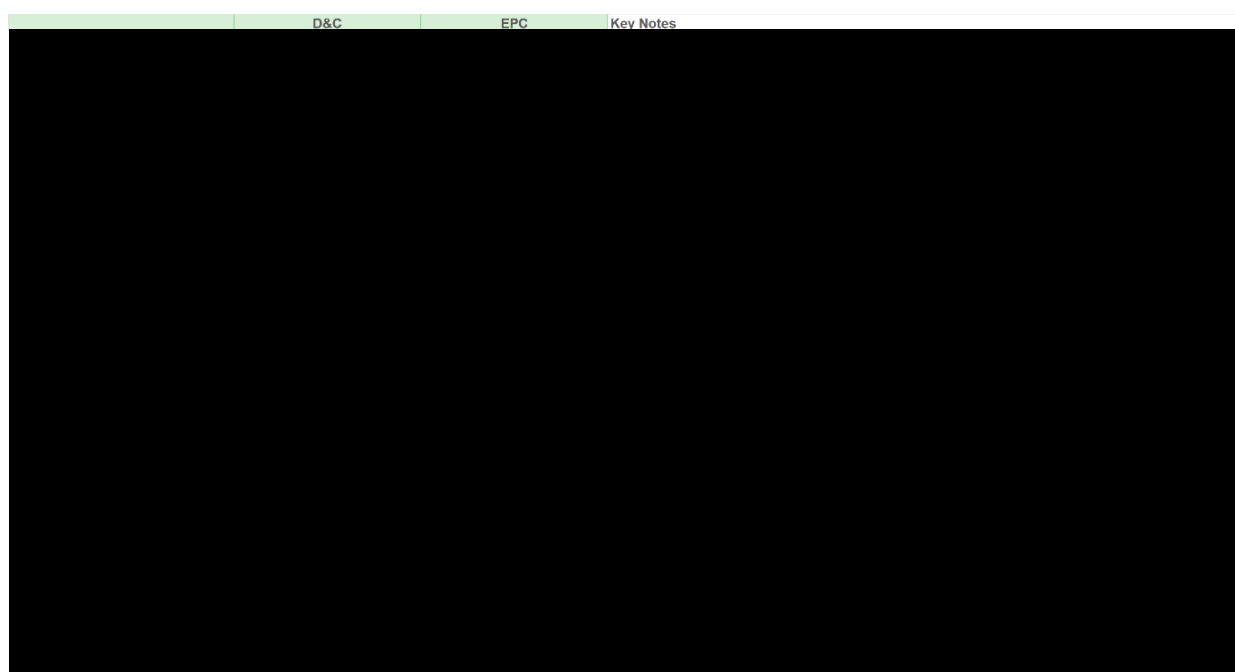


Figure 3 HumeLink Contract Form

### 3.3.2. Commercial Considerations – Market Feedback

As part of the PID, Transgrid also provided a high-level overview relating to key project commercial considerations.

Generally, the participant’s initial feedback suggested that Transgrid’s approach was largely aligned with market expectations. However, it was noted that the further detail will need to be provided and discussed between Transgrid and the market as part of the procurement process (particularly during the ECI Delivery stage). A high-level summary of each participant’s feedback is provided in Table 8.

Table 8: Summary of Participant Feedback on Key Commercial Considerations

Participant	Summary of Feedback on Key Contract and Commercial Considerations
██████████	<ul style="list-style-type: none"> <li>■ Highlighted the importance of ensuring a ‘balanced’ risk allocation as being a key factor to achieve value-for-money and successful project delivery outcomes. i.e. risk allocated to party best allocated to manage it.</li> <li>■ Risk allocation should also take consideration of information known at the time of tender particularly with respect to contamination, utilities, site conditions and COVID-19. Depending on the extent of information available at tender time, Acciona would expect more collaborative risk sharing for these key risks.</li> <li>■ Consider an KPI regime that rewards exceptional performance in non-cost areas such as: safety, quality, environment and sustainability, program improvements and social sustainability.</li> <li>■ Consider delivering the project under an Incentivised Target Cost (ITC) contract.</li> </ul>
██████	No comments or issued raised.
██████████	<ul style="list-style-type: none"> <li>■ Suggest market is provided an opportunity to input into the EIS.</li> <li>■ Due to project program, will need ‘assumed approval conditions’ to use as a basis before final conditions received.</li> <li>■ Essential to identify all third-party assets and identify any strategy to relocate assets where required to maximise the value to the project.</li> </ul>
██████████	No comments or issued raised.
██████████████████	<p>Generally aligned with Transgrid’s strategy and principles, but would welcome opportunity to work through the following key commercial areas during the ECI:</p> <ul style="list-style-type: none"> <li>■ Uncertainty due to COVID-19;</li> <li>■ Force Majeure events (floods, storms, bushfires);</li> <li>■ FOREX and inflationary impacts; and</li> <li>■ Latent conditions (geotech, contamination, Commonwealth EPC legislation triggers).</li> </ul>
██████████████	Risk allocation of site conditions is key.
██████████	Contractor should not bear risk of unanticipated heritage/salvage and site access.
██████	Welcome opportunity to work through commercial risk allocation as part of the ECI.
██████	No initial concerns identified.

### 3.3.3. Contract and Commercial Matters – RECOMMENDATIONS

With consideration of the Market Sounding feedback, the following is recommended:

#### **Recommendation C1: Develop and seek feedback from the market on indicative commercial risk allocation as part of the EOI stage**

- Develop a comprehensive commercial terms sheet setting out Transgrid's preferred commercial risk allocation and commence the internal Transgrid consultation and approvals process;
- Based on the above, a simplified and sanitised version of this commercial terms sheet should be provided as part of the EOI documents for market feedback (on a non-evaluated basis); and
- This initial feedback should then inform the detailed discussions to be held as part of the ECI Delivery stage (refer below).

#### **Recommendation C2: Further discuss and develop appropriate risk allocation with ECI contractors during the ECI Delivery stage**

- The ECI Delivery stage should include appropriate ECI workshops and deliverables to allow Transgrid and the market to work through the key commercial issues and obtain general alignment prior to the submission of tenders; and
- Note that certain key commercial issues (e.g. risk allocation of unknown site conditions) will be informed by the extent of information that Transgrid can provide during the ECI Delivery stage.

#### **Recommendation C3: Confirm intended contract form at EOI stage**

Transgrid should nominate its intended contract form (EPC or D&C) at the EOI stage. The nominated contract form should be the one that best aligns with the proposed commercial terms sheets (i.e. minimises drafting amendments required). In recognition that the key concern of the market is the risk allocation rather than the contract form, the EOI should also include an indicative commercial risk allocation (refer Recommendation C1).

### 3.4. Procurement Approach

#### 3.4.1. Procurement Process – Market Feedback

The PID provided a high-level overview of the proposed procurement process and invited participants to provide feedback, including any proposals that would assist the parties to better address the HumeLink challenges and opportunities.

Overall, the participant feedback supported the implementation of an ECI as part of the procurement process as it would provide opportunities for the parties to:

- gain better detailed appreciation of the scope and requirements; and
- engage in early dialogue on key project risks and challenges, and to develop appropriate solutions to address these issues. Participants noted that the ability to develop optimal solutions and agreed appropriate risk allocations would enable greater value-for-money through reducing the risk contingency allowance required within the tender and contract price.

Several participants also identified opportunities to optimise the procurement process, including:

- consider optimising the EOI and ECI Tender stage which to potentially allow earlier commencement of the ECI Delivery stage (██████████);
- provide appropriate notification period to enable mobilisation of resources – suggested 4 weeks prior to the commencement of the ECI Delivery stage (██████████);
- allowance of six months for the ECI Delivery stage appears to be appropriate, but is dependent on the required ECI deliverables and the information provided by Transgrid e.g.) level of design information, geotechnical reports, environmental studies, cultural and heritage studies and route selection (██████████);
- it was unclear to the market regarding the purpose of the RFT stage, different participants had different understandings and hence the feedback was varied (general feedback); and
- clearly outline the expected number of ECI contractors and RFT tenders early in the procurement process (at the EOI stage) to enable the market to confirm its level of interest to participate (██████████).

#### 3.4.2. Bid Cost Reimbursement – Market Feedback

As part of the Market Sounding, participants were informed that Transgrid was considering offering partial bid cost to bidders shortlisted to participate in the ECI Delivery and RFT stages of the procurement process. The amount would be based on the verifiable and reasonable bid costs incurred for those periods (including up to contract award).

Key market feedback with respect to bid cost contribution is provided in Table 10 below.

Table 9: Summary of Participant Feedback on Bid Cost Reimbursement

Participant	Summary of Feedback on Bid Cost Reimbursement
██████████	<p>Seeks <b>full cost</b> reimbursement for the ECI stage substantiated with monthly timesheets and invoices.</p> <p>At the one-on-one session with ██████████ (held on 2 May 2022), ██████████ reiterated its preference for full cost reimbursement to guarantee its interest and to ensure it could allocate its best team to participate in the ECI. However, ██████████ confirmed that partial bid cost reimbursement would not automatically preclude it from participating in the</p>



	HumeLink procurement process. It was acknowledged that if Transgrid intended to award the East and West packages to separate contractors, then this would contribute in improving the level of market interest.
████	Supports the Transgrid's proposed approach of <b>partial bid cost</b> reimbursement. Recommends setting a pre-agreed cap.
████	Response based on the packaging approach selected by Transgrid: <ul style="list-style-type: none"> <li>■ If three ECI proponents over Packages 3A &amp; 3B: <b>Full ECI reimbursement</b> must be made to the proponent not selected. The two other successful proponents will seek reimbursement through the project cost.</li> <li>■ If 2 ECI proponents over Packages 3A &amp; 3B: <b>Partial ECI reimbursement</b> can be made.</li> <li>■ If all-competitive tender over Package 1: <b>Full reimbursement</b> is expected.</li> </ul> At the one-on-one session with █████ (held on 2 May 2022), █████ reiterated its preference for full bid cost reimbursement to maximise the level of market interest in the HumeLink procurement process. In particular, █████ highlighted the significant number of transmission line projects currently in the pipeline. █████ confirmed that partial bid cost reimbursement would not necessarily preclude it from participating in the HumeLink procurement process, but it would need to review the final details.
████	Supports bid cost reimbursement but did not specify whether full reimbursement would be expected.
████	Supports the Transgrid's proposed approach of <b>partial bid cost</b> reimbursement. Provided an estimated bid cost of between \$5M to \$8M.
████	Seeks <b>close to full cost</b> reimbursement. At the one-on-one session with █████ (held on 3 May 2022), PPL acknowledged that it was unlikely to achieve full bid cost reimbursement but would be seeking partial reimbursement within the vicinity of 75% to 80%.
████	Seeks cost reimbursement <b>between 50% to 100%</b> of total bid costs (based on precedent from other recent comparable projects)
████	Supports the Transgrid's proposed approach of <b>partial bid cost</b> reimbursement.
████	Supports the Transgrid's proposed approach of <b>partial bid cost</b> reimbursement.

### 3.4.3. Procurement Process – RECOMMENDATIONS

Based on the Market Sounding feedback, the following recommendations are made with respect to the procurement approach.

#### Recommendation D1: Implement the ECI Delivery stage as part of the procurement process

- Refer to 'Recommendation B1' in section 3.2.3.

#### Recommendation D2: Optimise the duration and requirements of the EOI and ECI Tender stages

There is an opportunity to optimise the EOI and ECI Tender stages to enable the ECI Delivery stage to commence earlier than currently targeted i.e.) Commence the ECI Delivery stage in September 2022 rather than late 2022 (as specified in the Delivery Procurement Strategy).

This will provide the following benefits:

- enabling the market to provide input and feedback on the draft EIS; and

- reducing the overall procurement process duration, enabling potentially earlier contract award. However this must be considered against other key project milestones, particularly with respect to Planning Approval (which isn't expected until late 2023).

Early commencement of the ECI Delivery stage will be subject to Transgrid's readiness to finalise the necessary documentation and information (specifically base specifications, contract documents and information documents), and undertake evaluations and approvals for the EOI stage and ECI Tender stage in the accelerated timeframes. With respect to the readiness of project documents for the commencement of the ECI Delivery stage, it is noted that:

- Initial engagements within the HumeLink team indicate that this earlier target commencement date for the ECI Delivery stage is feasible; and
- The key exception is the site investigation information which is not expected to be fully complete until after the ECI Delivery stage. This issue may be mitigated by providing an opportunity for tenderers to confirm their tender offers based on the final information available (post tender submission). It is noted that a similar 'baseline' regime will also need to be implemented to manage any differences between the 'assumed baseline Conditions of Approval' and 'final Conditions of Approval'.

**Recommendation D3: Implement a partial bid cost reimbursement regime with a cap**

The Market Sounding has indicated that some form of bid cost reimbursement will be required for HumeLink in order to attract the required level of market interest, and to ensure that the market dedicates sufficient and appropriately skilled resources to achieve the required procurement and project outcomes.

The recommended approach is to offer a **partial bid cost reimbursement up to a pre-agreed cap**. Key details of this recommended approach is set out below:

Recommendation	Justification
<p>Entities shortlisted by Transgrid to participate in the ECI Delivery stage of the procurement process will be eligible to claim bid cost reimbursement.</p> <p><b>Note:</b> There is proposed to be no bid cost reimbursement for any costs associated with market participation in the EOI and ECI Tender stages.</p>	<ul style="list-style-type: none"> <li>■ Due to current heated contracting marketing (including large pipeline of transmission projects in Australia), bid cost reimbursement will be required to ensure the required level of market interest and participation.</li> <li>■ Recent major infrastructure projects (&gt;\$100M) have commonly offered some form of bid cost reimbursement.</li> <li>■ Reimbursement for EOI and ECI Tender is not typically required due to the comparatively low level of bid effort required. It is also consistent with precedent on recent comparable infrastructure projects.</li> </ul>
<p>The total bid cost reimbursement amount is to be limited to a common cap that:</p> <ul style="list-style-type: none"> <li>■ will be confirmed and agreed with shortlisted entities as part of the ECI Tender Stage (prior to commencing the ECI Delivery stage); and</li> <li>■ reflects a partial reimbursement of their verifiable ECI preparation and bid costs.</li> </ul> <p>The common cap will be determined based on the following:</p>	<ul style="list-style-type: none"> <li>■ Notwithstanding the feedback from some participants, it is not recommended that Transgrid offers full bid cost reimbursement.</li> <li>■ This is to ensure all entities maintain some form of 'skin in the game' and which provides additional incentive to submit their best tender offer.</li> <li>■ Establishing a common bid cost reimbursement cap is recommended to: <ul style="list-style-type: none"> <li>– provide a level playing field;</li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>■ At EOI stage: Initial budget bid cost estimates to be submitted by participants (on a non-evaluated basis) based on an initial ECI workshop and deliverables schedule provided by Transgrid.</li> <li>■ At ECI Tender stage: <ul style="list-style-type: none"> <li>– Transgrid will provide final details of the ECI Delivery stage requirements including the ECI Agreement and services brief;</li> <li>– Participants will be required to submit their estimated bid costs; and</li> <li>– Transgrid will review all submissions and confirm the common cap to be applied. Participants will be required to confirm their acceptance of this cap in order to be eligible to be shortlisted to participate in the ECI Delivery stage.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– provide cost certainty to Transgrid; and</li> <li>– ensure a focus on high-quality outcomes and deliverables rather than the number and attendees at workshops.</li> <li>■ Based on initial market feedback, this cap is expected to be between \$5M to \$8M per entity subject to the ECI Delivery stage program and deliverables. This amount should be tested at EOI and ECI Tender stage.</li> </ul>
<p>Entitlement to bid cost reimbursement will be subject to the following conditions:</p> <ul style="list-style-type: none"> <li>■ bona-fide participation in the ECI Delivery stage process including attendance at all mandatory workshops, and the timely submission of interim submissions and other required ECI deliverables;</li> <li>■ submission of a bona-fide and conforming tender;</li> <li>■ the entity vests ownership of the intellectual property associated with the procurement process to Transgrid; and</li> <li>■ the entity has developed and submitted a conforming tender but is not the successful tenderer (successful tenderer will recoup costs as part of their tender/contract price, and will not be entitled to any other contributions).</li> </ul>	<ul style="list-style-type: none"> <li>■ This approach ensures that the bid cost reimbursement regime is 'outcome' focused including the following: <ul style="list-style-type: none"> <li>– In return for paying bid cost reimbursement, Transgrid will receive definable outcomes and deliverables; and</li> <li>– Any ECI contractor who does not satisfy these conditions will not be entitled to bid cost reimbursements.</li> </ul> </li> <li>■ This regime will also ensure all ECI contractors continue to participate in the procurement process until contract award (or otherwise released by Transgrid).</li> </ul>

The following alternative bid cost reimbursement options were also considered but are not recommended.

### **Bid Cost Reimbursement Alternative Option A: Full Bid Cost Reimbursement**

Full Bid Cost Reimbursement is not recommended for the following reasons:

- Full reimbursement is not the precedent on recent major infrastructure projects (all major NSW government infrastructure projects offer partial bid cost reimbursement – generally 50%). However it is acknowledged that due to the large pipeline of transmission line projects currently in delivery or procurement, to ensure maximise level of interest for suitable bidders it is likely that HumeLink will need to offer a higher percentage than the NSW Government standard of 50%;
- Full reimbursement would mean that the entity does not have any 'skin in the game', including the following considerations:
  - Having an element of the bid cost at risk ensures that bidders are appropriately incentivised to recoup this amount by being successful in the bid. This will help ensure they implement measures to maximise their likelihood for success including appointing the best possible bid team, maximising the quality and

competitiveness of their tender price, and may influence their willingness to negotiate on key matters; and

- Creates the risk that at any point in the procurement process, if an entity believes that they are no longer the front-runner or likely winner, they may just ‘go through the motions’ to just submit a conforming tender to be eligible for reimbursement.

It is recommended that full cost reimbursement is only considered if it is necessary to ensure the appropriate level of market interest in HumeLink. Transgrid will seek to obtain further market feedback on this as part of the EOI stage (by providing an indicative ECI program and deliverables schedule). The final bid cost reimbursement regime and amount will be confirmed as part of the ECI Tender stage.

### **Bid Cost Reimbursement Alternative Option B: Bid Costs determined based on competitively bid rates and resource profile**

Although this Alternative Option B (Bid Costs determined based on competitively bid rates and resource profile) is feasible, there is a risk that it may negatively impact the outcomes of the procurement process due to the following:

- This approach shifts the focus of the ECI procurement process to a ‘bid team resource usage’ rather than an ‘outcomes and deliverables’ focus;
- Notwithstanding that the ECI and tender submission deliverables will be the same for all entities, under this option entities may be incentivised to maximise the number and duration of ECI workshops rather being focused on maximising efficiency and collaboration in fewer workshops. For example:
  - Tenderer A may work collaboratively with Transgrid to quickly reach a mutually acceptable commercial risk allocation. This would likely require fewer commercial ECI workshops negotiating commercial departures and qualifications. This may mean fewer or shorter duration ECI workshops, but which represents a positive outcome for Transgrid.
  - In comparison, Tenderer B may seek to aggressively push a commercial risk profile that is more favourable for itself (including refusing to bend on matters which Transgrid or its board or regulator cannot accept). This would likely require more time and effort for the parties to resolve.

In the simple example above, Tenderer B would be entitled to a greater level of bid cost reimbursement compared to Tenderer A. This is despite Tenderer A providing a more favourable outcome to Transgrid; and

- It would also increase the requirements and complexity associated with the ECI Tender process in terms of submitting, assessing, and negotiating this regime and then administering it during the ECI Delivery / RFT stages. This may impact on the ability of Transgrid to accelerate the commencement of the ECI Delivery stage as set out in Recommendation 2 of this section.

### **Recommendation D4: Shortlist no more than three entities to participate in the ECI Delivery stage - Final decision to be made at conclusion of EOI stage.**

Participants confirmed that the number of entities shortlisted to participate in the ECI Delivery / RFT stages would influence their level of interest in HumeLink procurement process, and their expectations for bid cost reimbursement.

The benefits and risks associated with shortlisting either two or three entities are outlined in Table 10 below. However it is recommended that Transgrid holds from finalising its decision until after the final consortiums and bidding entities are known (which will only occur after the submission of EOI applications).

With respect to the EOI documentation, it is recommended that Transgrid communicates to the market that:

- it will shortlist ‘up to three’ ECI contractors; and
- the final number of parties to be shortlisted will be advised to the market at the conclusion of the EOI stage as part of the EOI Evaluation Report (i.e. at this point Transgrid will confirm whether to shortlist three or two entities).

Table 10: Shortlisting Options

Option	Benefits	Risks
<b>Shortlist two entities</b>	<ul style="list-style-type: none"> <li>■ Increase market interest in HumeLink due to increased probability of success.</li> <li>■ Allows Transgrid to dedicate time to consider proposals and develop solutions with two parties rather than being spread limited resources across three.</li> </ul>	<ul style="list-style-type: none"> <li>■ May limit Transgrid’s ability to award the East and West contracts to separate contractors. E.g. if one tenderer does not offer value-for-money than Transgrid may be required to award both East and West packages to a single contractor.</li> <li>■ Risk that one entity does not perform or pulls out during the procurement process leading to early loss of competitive tension.</li> <li>■ This risk can be mitigated by implementing the following:               <ul style="list-style-type: none"> <li>– Only implementing this option if Transgrid receives at least two strong EOI submissions from consortiums that comprise of two or more individually capable entities. This means that if one entity becomes insolvent and pulls out, that the other is still capable of continuing (with the option of finding a replacement partner).</li> <li>– Implementing the recommended bid cost reimbursement regime (i.e. paid after contract award and subject to the to the specified conditions).</li> </ul> </li> <li>■ Notwithstanding the measures above, a withdrawal of a bidder could significantly disrupt the procurement process and project delivery program under this option.</li> </ul>
<b>Shortlist three entities</b>	<ul style="list-style-type: none"> <li>■ Provides contingency and ensures competition for Transgrid during the procurement and delivery phases (if separate contractors are appointed to deliver the East and West packages).</li> </ul>	<ul style="list-style-type: none"> <li>■ Significant increased resource burden on Transgrid and subject matter experts to support the ECI process.</li> <li>■ If the necessary Transgrid resources and subject matter experts are unable to dedicate the required time to meaningfully contribute at the ECI workshops and to review and provide feedback to interim submissions, this will decrease the effectiveness of the ECI process, and outcomes of the procurement process.</li> </ul>

## 4. Other Feedback

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### 4.1. Feedback from engineering firms and key suppliers

There was a total of six engineering and supplier entities that participated in the HumeLink Market Sounding. The list of engineering firms and key supplier participants included the following:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED] and
- [REDACTED]

The Engineering and Supplier entities provided high level comments regarding the long lead items that can potentially be procured early. This included the following:

- Transformers – higher than normal costs for electrical equipment and the associated shipping costs, together with extended delivery times;
- Transmission line structures;
- Line reactors;
- Synchronous compensator (STATCOM);
- Static VAR compensator (SVC); and
- Intelligent Electronic Device (IED) – could have a lead time of 24 weeks.

#### Other Comments

- [REDACTED]: Transgrid to review the option for 765kV transmission lines and this will reduce the number of lines, reduce the lower high, reduce power loss and future proof additional capacity.
- [REDACTED]: Transgrid to consider the following activities
  - Site survey and route planning for tower positioning - optimum line design covering the best fit for safety and reliability for the transmission line considering site access constraints.
  - Confirmation of access tracks design
  - Opportunity for commercial savings if tower designs and detailed early in the program to optimise steel tonnage.

## 4.2. Alternative proposals

Several participants provided alternative proposals (from Transgrid’s intended approach as outlined in the PID) for Transgrid’s consideration. These proposals are summarised in the table below with recommendations.

Table 11: Summary of Participant Feedback on Key Commercial Considerations

Alternative Approach	Recommendation
Implement a Target Cost Model with an incentivised Pain-Gain Share Mechanism to drive high performance. ( )	Transgrid is already considering the implementation of an ITC and a KPI regime to incentivise achievement of non-financial outcomes (safety, social license and legacy and innovation).
Only engage a single ECI contractor per package with an open-book cost approach or guaranteed maximum contract value mechanism to ensure value-for-money. ( )	Although it was noted by ( ) that a similar process was implemented by ElectraNet for South Australia PEC, this approach presents the following risks to Transgrid: <ul style="list-style-type: none"> <li>■ Experiences on other NSW infrastructure projects (e.g Sydney Metro – Sydenham Station and Junction) have found that this single bidder approach can be highly challenging to obtain value-for-money.</li> <li>■ Notwithstanding the open-book cost approach, the key areas of contention will likely be commercial risk allocation and risk contingency which are often difficult to negotiate without competitive tension. Having one bidder significantly reduces Transgrid’s negotiation position to resolve these issues.</li> <li>■ It also provides no contingency for Transgrid in the event the single bidder does not perform, withdraws from the procurement process or becomes insolvent.</li> </ul>
Deliver HumeLink through a Delivery Partner contract model. ( )	Transgrid has already considered the Delivery Partner model in detail as part of the development of the HumeLink Delivery Procurement Strategy based on an evaluation criteria that considered: cost, risk, property, timing, flexibility and governance requirements.  It is noted that the delivery partner model was ranked sixth out of a total seven options considered.

## 5. Summary of Recommendations

The recommendations outlined in this report are summarised in Table 12.

Table 12: Key Recommendations

Area	Recommendation	Reference (further detail)
<b>Delivery Strategy</b>	<b>A1</b> Proceed with Delivery Option 3 (Two Package – Geographic Split) for the HumeLink procurement process.  This option provides several key benefits including maximising level of market interest, providing Transgrid with competition and options during the procurement and delivery phases, and creates only one major interface which can be managed.	<b>Section 3.1.5</b>
	<b>A2</b> Maintain flexibility to proceed with Delivery Option 1 (Single Package) as part of the procurement process if the market can demonstrate significant value-for-money and project benefits.  This recommendation can be accommodated by allowing a non-mandatory option to be submitted by bidders with a combined offer to deliver both the East and West packages.	
<b>Program and Delivery Matters</b>	<b>B1</b> Implement ECI as part of the procurement process.  Consistent feedback in the Market Sounding indicates that the market recognises and supports an ECI model as part of the procurement process in order to work through key issues, risks and opportunities with Transgrid in a collaborative manner.	<b>Section 3.2.3</b>
	<b>B2</b> Ensure key issues are identified and discussed early in the ECI Delivery stage.  This will provide more time for Transgrid to consider and further develop worthwhile proposals from the ECI contractors.  In turn, this maximises the effectiveness of the ECI process and ability of the ECI contractors to influence key decisions relating to HumeLink.	
<b>Contract and Commercial Matters</b>	<b>C1</b> Develop and seek feedback from the market on indicative commercial risk allocation as part of the EOI stage.	<b>Section 3.3.3</b>
	<b>C2</b> Further discuss and develop appropriate risk allocation with ECI contractors as part of the ECI Delivery stage	
	<b>C3</b> Confirm intended contract form for EOI (D&C or EPC)	
<b>Procurement Process</b>	<b>D1</b> Implement the ECI Delivery stage as part of the procurement process	<b>Section 3.4.3</b>
	<b>D2</b> Optimise the duration and requirements of the EOI and ECI Tender stages, specifically by reducing the ECI Tender duration in order to commence ECI Delivery stage earlier.	
	<b>D3</b> Implement a partial bid cost reimbursement regime up to a cap.	



	<p>The cap will be agreed will be common across all ECI contractors and agreed as part of the ECI Tender stage.</p>	
	<p><b>D4</b> Shortlist no more than three entities to participate in the ECI Delivery stage.</p> <p>It is recommendation that Transgrid holds its final decision at conclusion of EOI stage (after the consortiums and bidding parties are known).</p>	

## Appendix A Targeted Organisations

ID	Entity	Market Sounding Participation
ROI - 01	[REDACTED]	Yes
ROI - 02	[REDACTED]	No
ROI - 03	[REDACTED]	Yes
ROI - 04	[REDACTED]	No
ROI - 05	[REDACTED]	Yes
ROI - 06	[REDACTED]	Yes
ROI - 07	[REDACTED]	No
ROI - 08	[REDACTED]	Yes
ROI - 09	[REDACTED]	Yes
ROI - 10	[REDACTED]	Yes
ROI - 11	[REDACTED]	No
ROI - 12	[REDACTED]	No
ROI - 13	[REDACTED]	Yes
ROI - 14	[REDACTED]	No
ROI - 15	[REDACTED]	No
ROI - 16	[REDACTED]	No
ROI - 17	[REDACTED]	Yes
ROI - 18	[REDACTED]	Yes
ROI - 19	[REDACTED]	No
ROI - 20	[REDACTED]	Yes
ROI - 21	[REDACTED]	Yes
ROI - 22	[REDACTED]	No
ROI - 23	[REDACTED]	Yes
ROI - 24	[REDACTED]	Yes
ROI - 25	[REDACTED]	No
ROI - 26	[REDACTED]	Yes
ROI - 27	[REDACTED]	Yes
ROI - 28	[REDACTED]	No
ROI - 29	[REDACTED]	No
ROI - 30	[REDACTED]	No
ROI - 31	[REDACTED]	Yes
ROI - 32	[REDACTED]	Yes

## Appendix B Registration of Interest

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## Appendix C Project Information Document (including Questionnaire)

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## Appendix D Questionnaire Responses

Industry Category	Questionnaire Responses
Delivery Contractor	██████████
	██████████████
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	Engineer/Supplier
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██████████	

## Appendix E Delivery and Program Risk and Opportunities (Detailed)

### E.1 Program Risks and Opportunities

#### Program Risks

Entity	Program Risk
██████████	<p>Procurement timeframes – The timely supply of long lead time items such as transformers, switch gear and cable will be critical. Timeline for supply of steel will need to be carefully considered. Long lead time items need to be ordered well in advance and their manufacture closely monitored in the build up to required delivery dates. Prioritising design development to confirm the specification of key items up front will allow the early engagement of suppliers, reducing the risk of complications in the procurement process.</p> <p>Logistics – There is a significant amount of material that will be delivered from overseas to site. The distances involved in safely and efficiently transporting this and other materials and plant and equipment create one of the bigger challenges. Managing materials and equipment deliveries from overseas is something ██████████ do regularly on major infrastructure projects. The ██████ has established relationships with proven overseas suppliers and local transport companies.</p> <p>Land Access – a potential challenge to the project being completed on time is access to land and ensuring contiguous and unfragmented works fronts. Although this will be a part of TransGrid’s deliverables, ██████████ will work closely with them to ensure that once access is granted, the ██████ adheres to all protocols. ██████████ is very experienced in dealing with landowners construction access and have proven processes and dedicated personnel to ensure compliance.</p> <p>Camp Locations and Approvals – Construction camps may be required along segments of HumeLink (depending final resource numbers an accessibility to local towns). The approval process and location of these camps can sometimes be time consuming and costly and can cause delay if not actioned early enough in the process. An essential part of the early stages after award will be identifying requirement and developing the camps to ensure there are no delays to commencing works on site when client approvals for access are granted.</p>
██████████	<p>ECI mobilisation period – we recommend a notification at least 4 weeks prior to the commencement of the ECI phase to allow teams to mobilise resources. The 6 month ECI phase should be sufficient, it would depend on the outputs required and level of detail, such as Geotech factual report / investigative studies, environmental (flora/fauna), cultural heritage.</p>
██████	<p>Substations – Delivery timeframes and variable costs of HV plant and equipment. Outage constraints on brownfield substation augmentation. Weather.</p> <p>Social licenses and environmental approvals are a high risk consideration</p>
██████████	<p>Completion of the EIS</p>
██████████	<p>Determinations &amp; approvals external to Transgrid.</p>
██████████	<p>Covid, market volatility of commodities i.e. availability of raw items and geopolitics</p>
██████████	<p>Access, Geotech and route selection</p>

<p>██████████</p>	<p>We consider various key approvals including those associated with the EIS, National Park, general landowner &amp; stakeholder engagements are fundamental to ensuring the projected milestones are met. Some critical activities identified include:</p> <ul style="list-style-type: none"> <li>■ Tower Spotting logistics</li> <li>■ Approvals of access roads</li> <li>■ Geotech / geology at tower locations</li> <li>■ Land Acquisitions and related ongoing stakeholder consultation and management</li> <li>■ Social License targets and requirements - These need to be made very clear and early in the process.</li> <li>■ Availability of skilled resources across the whole value chain.</li> </ul>
<p>██████████</p>	<p>Access to site</p> <ul style="list-style-type: none"> <li>■ Alignment with seasonal weather conditions</li> <li>■ Landowner requirements and agreements (i.e. cropping, stocking, lambing)</li> <li>■ Environmental requirements (i.e. fauna nesting blocking access to certain areas of the project during certain times of the year)</li> <li>■ Ground conditions (and assessment of)</li> <li>■ Clearing requirements</li> <li>■ Volume of access tracks and crossings</li> </ul> <p>Procurement – early ordering of major plant and equipment</p> <p>Risk of changes in the EIS approval conditions/Development Consent between Submission, Public Exhibition and Final Approval.</p> <p>Stakeholder management</p> <p>Risk of inability to achieve FID due to unexpected project constraint (i.e. Social Licence, Environmental, Cultural Heritage, Contamination)</p> <p>Design and engineering – early engagement and alignment</p> <p>Site investigations – alignment and coordination with Contractors for the required inputs</p> <p>Site studies not identified in Contract Assumption tables:</p> <ul style="list-style-type: none"> <li>■ Hydrology</li> <li>■ Geology (including type and Harness of Rock, water table)</li> <li>■ Contamination</li> <li>■ Earthing resistivity</li> </ul> <p>Tower prototyping and testing of new tower designs</p>

## Program Opportunities

Entity	Program Opportunities
<p>██████████</p>	<p>Minimise interfaces between design and construction may be achieved by awarding the single package and mitigating the interfaces between the substations and transmission line work fronts.</p> <p>Coordinate the ECI Phase with the regulatory approvals. The ability to work closely with Transgrid in the development of the EIS and approvals to incorporate</p>

	early design to add in such items as Concrete batch Plants, brake and winch sites, camp locations, additional access to areas. If these are included in EIS submission will reduce potential for delays.
██████	ECl – there is up to 3 months between the end of EOI phase and start of ECl phase, which should be more than sufficient time to complete the review process and identify proponents to participate in an ECl process, however this could potentially be shortened. Another suggestion to save time would be the early provision of project information (via an established data room) and sufficient notification period to successful proponents from the EOI phase to allow time to mobilise our teams and review the information prior to start of ECl.
██████	Substation – potential to reduce the delivery duration
██████	This will depend on access, route selection and easement acquisition. There are some efficiencies that could be discussed around construction techniques, but the time saving is minimal compared to the overall program.
██████████	<p>██████████ of long lead (LL) items applicable to the whole scope. There is an opportunity for Transgrid to directly procure some (or more) of these LL items during the ECl /RFT process to increase program float as well as realise savings from direct procurement (not through ██████████ - no margin) as well as improving cashflows of various Contractors.</p> <p>Offshore and onshore prefabrication and pre-casting opportunities that could be readily deployed for this project saving CAPEX as well as program (Reducing time and building float).</p> <p>Early "technical" engagement with Contracting Partners (which is the basis of course of the ECl process) - however aligning with all participants on discrete investigatory works such as more targeted Geotech, surveys or contamination studies have great potential for reducing risk allowances as well as optimising programs and critical paths (extra float may be able to be accommodated to protect the overall program).</p> <p>Early Commercial alignment with Contractors in particular more detailed focus on risk allocations / mitigations, Insurances, Liability Caps, Liquidated Damages, Inflation and Foreign Exchange Management, Contractor Incentivisation would benefit all parties and achieving the project objectives greatly.</p> <p>Participation cost for Proponents should be on par with the NSW Government Procurement Guidelines as we have seen positively reflected in the Transport Sector by way of example.</p>
██████	Entice and allow Contractors to undertake design activities earlier.



## E.2 Delivery Risks and Opportunities

### Delivery Risks

Entity	Delivery Risk
<p>██████████</p>	<p>Crew Movements – There are significant distances involved in the Project and one of the key risks associated with this, is the minimisation of crew movements to address driver fatigue and the potential impact on local roads. ██████████ is experienced with this type of risk and deals with it on most of our remote projects in Australia. This may be managed through use of buses, helicopters and vehicle tracking systems.</p> <p>Isolated Work Environments – Without close proximity to hospitals, site safety and detailed emergency response procedures are crucial. Section specific emergency response plans will provide details of the closest medical centres for each major component of the project alignment. Multiple trained first aiders should be a mandatory requirement within work groups, with the project also scheduling regular training sessions to ensure qualifications are up to date.</p> <p>Environmental/Cultural Heritage Areas – The scale of the Project creates the real possibility of the line being built over culturally sensitive land. The JV is very experienced in working in these situations and has done so on many of our transmission line and rail projects in Australia. We have systems in place that allow us to input coordinates of any such areas so that personnel travelling along the project can determine via GPS coordinates where these restricted areas are and ensure they do not encroach. This will be one of the key activities prior to obtaining access to site and required for each section of work prior to commencing on site.</p> <p>Availability of resources – Water or availability of rock from quarries could be considered a risk due to remoteness of areas. The supply of suitable water for concrete batch plants, dust suppression and use in camps is a risk to the project given the potential limited water sources available and the type of terrain that the line is traversing. These will be key items to address early to ensure accurate pricing and a sustainable solution is achieved.</p> <p>Working in or around National Parks/State Forests – The project will encroach on possibly either NP or state forests which leads to additional approvals and stakeholder engagement needs to be considered, as well as specific flora and fauna requirements.</p> <p>Bushfires – Areas have varying degrees of both wooded and less wooded areas which presents the possibility of bushfires and the need for appropriate planning.</p> <p>Weather – The areas possess both hot summer and or snow in areas which can lead to delays.</p> <p>Future Currency and Commodity Values – With an RFT in Q2 2023, contract award not announced until end 2023 and construction to commence Q2 2024, there is a long period of time between initial presentation of contract value, contract award and construction commencement, which presents the potential for significant fluctuations in material supply costs in the current (and anticipated future) economic climate. It will be very important to identify and include provision for future escalations in commodity prices or currency fluctuations into the project budget. A detailed and transparent mechanism will be required for allocating risk associated with the rise and fall of commodity prices and currency values.</p>

	Managing cutovers – requirement will be to cut into the network and align with TransGrid's availability to accommodate sequence of cutovers without disruption to the network.
██████	Resources – this project is likely to be running in parallel with other TL projects in NSW i.e. Central West Orana REZ.
	Procurement and Supply chain constraints – Access to materials is continuing to be felt across the construction industry, particularly for items procured overseas.
	Adverse weather patterns – This area is subject to high winds and given recent La Nina weather patterns (rain), adverse weather will need to be a consideration.
	Access – We recommend a guided site tour of the proposed TL corridor route including proposed substation new sites and existing substation locations.
	Ground conditions – could be an issue. Preliminary (desk top studies) would be helpful and should include topographic info (5m contours) and relevant surveys.
██████	Delivery timeframes and variable costs of HV plant and equipment. Outage constraints on brownfield substation augmentation. Weather.
	Social license and environmental approvals are a high risk consideration
██████	Skilled Labour Resourcing
	EIS and Cultural Heritage Approvals granted without delays
	Ground Conditions and Site access constraints due to the Mountainous areas on the Southern side of the proposed alignment
	Supply Chain impacted by COVID if persists
██████	Remote locations, terrain, ground conditions, geo-political issues for imported materials & equipment, global freight & logistics issues, Forex rates, immigration for using imported labour, interface between packages for sequencing as well as battery limits.
██████	Ecological, weather, ground conditions, logistics, pandemics, protester action, local sensitivities, commodity volatility, labour availability and other geopolitical issues.
██████	Community engagement, any works in National Parks, resources in a heated market
██████████	Competition for available skilled resources, services and materials across the whole value chain- There is an unprecedented spend in National Infrastructure and its getting harder and harder to line up alone for these new projects regardless of attractiveness.
	Supply chain constraints – Ensuring continuity of supply let alone securing pricing which currently is highly volatile and subject no enormous fluctuations exacerbated to external influences such as Covid and the recent Ukraine War.
	Attracting appropriately skilled talent to this regional project at a time of extreme competition for available resources.
	Other Expected Challenges as stated do include: <ul style="list-style-type: none"> <li>■ Mountainous Terrain and associated weather constraints that may impact productivities including e.g. Line Stringing</li> <li>■ Ground conditions including contamination and groundwater</li> </ul>

	<ul style="list-style-type: none"> <li>■ Cultural / Heritage risks that may delay approvals or cause significant disruptions</li> </ul> <p>Project Timelines – The initial ECI period is relatively short however we are expecting perhaps a reference design with some form of cost plan as a starting point for participants to facilitate more rapid ECI mobilisation. Whilst we are able to leverage internal cost intelligence and benchmarks it is very challenging getting sufficient market coverage in the timeframes expected which may lead to more contingencies etc, being applied in the current unprecedented market.</p> <p>Time Lag for Construction – There seems to be quite a lag between procurement and final delivery (Nearly 2 years before we are to deliver physical construction works). This is not ideal and very challenging to price that may require qualification of significant risk allowances.</p> <p>Procurement of Long Lead Items – The successful management of Long Lead Items (how are these procured in a timely manner and to spec across multiple sites / packages) will be a challenge for most models including the proposed ECI.</p>
<div style="background-color: black; width: 100px; height: 15px; margin-bottom: 5px;"></div>	<p>Social licence – This is the most critical risk to the project, without Social Licence to construct and operate the transmission line, we will be unable to construct the works.</p> <p>Access risk – specifically Continuous and Contiguous access to site - the construction of large scale transmission lines is a matter of linear works, similar to production line in a factory. In-ability to gain access will likely cause a cascading effect to our production line. Where these access gaps can be planned for, it is possible to mitigate this.</p> <p>Ground conditions – Sufficient investigative studies will allow us to determine the appropriate design and plant to undertake the works, whilst “Aerial Laser Survey” and Site visits allow us to understand the topography of the land and therefore the methodology for the plant and plant type to be able to get to site, Geotechnical studies will allow us to understand the likely duration of works for the foundation crews.</p> <p>3rd party assets – Whilst this may seem simple, 3rd party assets such as existing train lines, distribution lines and other transmission lines can have a significant impact to the project if the owner of such assets is not made aware of the project and has not “bought in” to the project.</p> <p>Construction of the Maragle Line and Substation and Line is on critical path due the available access to site and alignment of the construction works to suit the weather conditions (snow line). When downer responded to the -previous Maragle switching station works – the access to the site was limited to around 7-8 months of the year. For some high-risk areas, Downer will assess the site conditions and Transgrid’s specific requirements to determine the applicability of the following potential solutions:</p> <ul style="list-style-type: none"> <li>■ Gin Pole construction</li> <li>■ Helicopter transport for foundations</li> <li>■ Helicopter erection of towers</li> </ul> <p>Natural occurring Asbestos – We are aware of Naturally Occurring Asbestos, which is prevalent to all earthworks required, it is essential that a Contamination Study occurs on all applicable areas so that the Contractor can plan a mitigation strategy for this risk.</p>

## Delivery Opportunities

Entity	Delivery Opportunities
<p>██████████</p>	<p>Economic Stimulus – Construction of HumeLink will result in the employment of local labour as well as an influx of interstate labour to construct the project. Local business will benefit directly and indirectly from increased spending along the project alignment, as the services of local contractors and skilled labour are used and an associated increase in demand for accommodation, groceries and restaurants occurs along the project alignment. By developing and using the project’s Local Industry Participation Plan, businesses in localities along the project will be identified and invited to tender relevant packages of work.</p> <p>Aboriginal and Torres Strait Islanders (ATSI) – The size of HumeLink allows for a large spend from the JV on ATSI businesses. ██████████ currently uses Supply Nation and has strong ties with some well-established ATSI companies including in the regions around the Project. These ATSI companies can be further used to mentor other smaller ATSI Companies and grow them in a sustainable way.</p> <p>Apprentice Linesmen – HumeLink presents a significant opportunity for ██████████ to continue to grow their apprentice and Linesmen training program. ██████████ currently has relationships with several training coordinators and has trained a large number of Cert III Linesmen over recent years. ██████████ is implementing an apprentice program to introduce new people into the transmission line market and a project of this size allows that investment to grow.</p> <p>Opportunity to right size the EIC length to allow time for value engineering and optimisation of design. Seven months allowance would be considered as a stretch for this purpose.</p>
<p>██████████</p>	<p>Local procurement – partnering with local business to promote increased economic activity in the region</p> <p>Establishment of training centre – to facilitate the project, plus future TL projects in NSW (knowledge/skill share)</p> <p>Accelerated (concept) design – HumeLink commences ahead of other projects in the region and thereby secures resources and materials</p>
<p>██████████</p>	<p>Upskilling the labour force of NSW providing value for the communities and ensuring a legacy in the T&amp;D industry by expanding the skilled resources for the pipeline of projects that are envisaged for the next 10 years in Australia.</p> <p>Augmenting the social impact commitments with the local community groups and aboriginal people by making sure they are benefited not only during the delivery phase but during the Maintenance of the asset for the years to come.</p>
<p>██████████</p>	<p>Good visibility of schemes which promotes positive planning and known time scales. From having advanced project visibility this enables Wood to engage with local labour markets with the known projects to look at upskilling the local work markets. Further to this Wood have attached our corporate Social Responsibility which provides details on schemes Wood are undertaking in Australia to upskill local work forces and reduce the gender skills gap.</p>
<p>██████</p>	<p>Provide multiple parties with achievable projects</p>
<p>██████████████</p>	<p>Early alignment with Contractors – in particular scope clarity, methodology testing, identification of Long Lead items, risk assessment, and allocations.</p>

	Leverage our comprehensive understanding of Transgrid/AEMO regulatory approval requirements and design packages to be able to Fastrack documentation in support of the phased approvals.
	Identification of High Risk Items and alignment on various risk mitigation strategies.
	Standardisation of Solutions & kit across all packages (Design, Procurement, Construction Methodology) – Substations, Towers, Piling & Foundations, drawing upon the diversity and depth of multiple specialist partners.
	Opportunities for prioritising Social Procurement Initiatives such as increased Local Participation and Upskilling, Indigenous participation, Increased Diversity, Apprenticeships etc.
	Consider Commercial Models that promote increased Collaboration, Integration, Sharing to drive higher performance (e.g. Target Costs with incentivisation)
	Direct Purchasing opportunities by Transgrid for key Long Lead Items (reduced Fee, locks in early buying gains, reduces FOREX / Inflation risks down the track)
	Leveraging our Parent company CCCC as well as local supply chain with respect to offshore/Onshore modularisation, prefabrication, precasting and pre-engineered solutions across the whole value chain.
	Investigate modular solutions for substation buildings.
	Leverage field mobility solutions to allow field staff access to the latest work packs electronically and efficiently to track progress and quality.
	Leverage GPS and bar coding systems where [REDACTED] will not only be bar-coding components to maintain delivery from source to peg but also vehicles and vehicles washdown facilities in order to track and control vehicle Movements.
[REDACTED]	Staging of the works to achieve early connection of either the Bannaby or Wagga connections dependant on market/AEMO requirements or constraints for the network (should there be any).
	Early engagement with the contractors on the required design inputs and studies to minimise iterations/rework, project risk and uncertainty.
	Mapping of the stakeholders and landowner requirements to assist in appropriate staging and construction methodologies.
	Flexibility of the staging to align with seasonal conditions (e.g. Snowline and Maragle works).
	Early procurement and commitment of long lead time materials and equipment.
	Correct allocation of risk to maximise value and likelihood of success.
	Correct sizing of packages to maximise likelihood of success.
	Innovation workshops to identify commercial-in-confidence ideas that could contribute to project success.



[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

## F.2 Webinar Recording

The HumeLink Market Sounding Briefing recording can be accessed using the following link:

- [REDACTED]

### F.3 Webinar Questions

Company	Name	Question	Answer
[REDACTED]	[REDACTED]	Can Transgrid explain its understanding of the difference between D&C and EPC. Thanks	Not a big difference between D&C and EPC. The contracting model Transgrid are considering is to have a risk based approach to the market and further details about the standard form conditions will be provided in the EOI phase.
		Can Transgrid explain further the difference between the ECI Tender and ECI Delivery stages	The ECI tender stage will involve the finalisation of the ECI agreement. The ECI delivery stage will involve the submission of the ECI deliverables.
		Hi, can you clarify what the Contractor involvement is in the RFT stage as agreements executed in the ECI Delivery stage?	The contractor involvement in the RFT stage is the finalisation of the price based on feedback received from the regulatory. It is expected that this involvement will not be significant.
[REDACTED]	[REDACTED]	The usual output of an ECI process is a firm and binding offer capable of acceptance with commercial terms agreed. Why is there an RfT after this process?	During the ECI phase, Transgrid will work with participants to build the overall contract price. Because of the regulatory framework Transgrid operates in, final approval of the contract price is required and will occur in the RFT phase.
[REDACTED]	[REDACTED]	Will a copy of this presentation be made available to registered attendees?	The briefing pack and video will be made available and can be distributed to others in your organisation.
[REDACTED]	[REDACTED]	how much experience has TransGrid had running multiple ECI processes concurrently? i.e if you take Option 3A & 3B there are 2 processes with 2 packages in each	<p>Transgrid as an organisation has minimal experience with running multiple ECI processes and that is why Transgrid is engaging with personnel which have extensive experience in ECI processes. Transgrid is new to running major projects and are doing all the standard practices to successfully deliver the project.</p> <p>If we went with the 2 packages options (East and West) Transgrid would only have one ECI process with 3 contractors. At the end of this process contractors would bid on east and it would be awarded. The other 2 contractors would bid on west and only 1 party will miss</p>



			<p>out. A similar approach was used on the Sydney Metro West Tunnelling package.</p>
		<p>Will there be one party providing an overall conceptual design for the entire scheme, or will there be multiple parties design different aspects?</p>	<p>Transgrid will be taking the design to a concept design level and will be seeking contractors to take this to a final design.</p> <p>Transgrid does have standards and requirements which contractors will need to comply with.</p> <p>Transgrid has already appointed an owners engineer.</p>
	██████████	<p>Is the development of the design from the reference design, going to be the full responsibility of the contractor's, or will a design engineer also be appointed by Transgrid?</p>	<p>Transgrid will be taking the design to a concept design level and will be seeking contractors to take this to a final design.</p>
██████████ ██████████ ██████████	██████████ ██████████	<p>What were the lessons learnt from ProjectEnergy Connect and will TransGrid be taking a similar channel to market?</p>	<p>Transgrid have reviewed the lessons learnt from PEC and this will be taken into account for the HumeLink project.</p>
██████████	██████████ ██████████	<p>As the completion date is not moving out beyond 2026, is it possible for TransGrid to shorten the "front end" ECI to provide more time buffer for the delivery phase?</p>	<p>This is a critical issue for Transgrid to work through during the ECI phase. This includes the staging construction and delivery for the project. Yes, it is possible to shorten the front end of the ECI phase and Transgrid will try to move the approval process forward to start delivery early. The timeframe between the end of the ECI phase and RFT phase will be optimised.</p>
	██████████ ██████████	<p>How are Transgrid planning on assessing the competence and importantly the capacity of the head contractors.....in a busy market there is likely to be conflicts with the requirements of the CWO project.</p>	<p>Transgrid is aware of the current capacity constraints in the market. As part of the assessment process, Transgrid will be looking at the resources contractors put forwards including human capital. plant and materials management.</p>
	██████████ ██████████	<p>Several state governments are executing contracts with a more collaborative models and risk sharing between the contractor and client. This is particular pertinent given the number of contractors in the market that are stressed or with questionable balance sheets. Would Transgrid consider such models where the client will take on sizeable portions of risk?</p>	<p>Transgrid will look at different risk models but we are operating in a highly regulated environment. Risk allocations will be looked at in the ECI phase and as part of the EOI documentation, a proposed risk allocation model will be provided.</p>
	██████████████████	<p>Is there an intent to reimburse bid costs in the event there is a competitive ECI?</p>	<p>Yes, the intention is to have bid cost reimbursement during the ECI delivery phase.</p>

	██████████	Are Transgrid undertaking all investigative studies prior to the ECI? (i.e. Geotech / Aerial Laser Survey / Cultural heritage surveys, environmental surveys, Contamination studies)?	Transgrid will be undertaking these investigative studies but there will still be some work which will be outstanding. Transgrid currently has completed a number of EIS survey and about to undertake geotech studies.
	██████████	Will the project delivery be split into stages or all scope delivered at the end of the project	Transgrid is seeking market feedback regarding the construction staging for the project.
	██████████	Will the restriction on Helicopter stringing be maintained for this project?	<p>Transgrid would like to work with contractors with their preferred methodology for delivering the project. Contractors would have to demonstrate the safety case for helicopters and that will be considered.</p> <p>Transgrid would like to understand their proposal. Innovation is key for Transgrid such as drone stringing, off site assembly</p>
	██████████	How will Transgrid manage landowner access risk and coordination if two to three proponents are chosen in the ECI (i.e. they will not be able to talk to local landowners)	Route corridor has been defined to 200m and have started the acquisition process.
	██████████	Will Transgrid have three separate teams to manage three separate contractors during the ECI or will it be the same Transgrid team working with each of the contractors?	Transgrid is currently considering resourcing for the ECI stage.
	██████████	Is there potential for an upside in the event a contractor can propose early completion	<p>Yes, we are looking for incentive mechanisms to be in the contract and we would like to work with the contractor to define these incentive mechanisms.</p> <p>We will look at incentivised target cost models since we are aware of the risks in the market, not only labour but materials and capacity constraints.</p> <p>We are also looking at guidelines provided by the AER.</p>
	██████ ██████████	Is there any staging preferences? E.g. Maragle to Bannaby or Wagga first?	This will be explored during the ECI phase.
██████ ██████████	██████████	Can you provide further explanation of the expected collaborative payment elements determined on a value for money basis	Transgrid are budgeting and are committed to providing funding for the ECI phase of the project. This has been asked in the questionnaire for the preference structure and payments.

██████	██████	Will you know how you are packaging the works prior to coming to market for the EOI stage	Yes, through the questionnaire Transgrid will have enough information to make a final decision and will have a clear structure which will be presented in the EOI.
██████	██████	Will a reference design and prelim cost plan be provided to ECI Participants	Yes, designs that have been developed to a concepted design level will be provided. Transgrid also has standards which contractors have to comply with.
██████ ██████	██████	Is the client seeking an alternative approach such as a BOOT or PPP style of project?	Transgrid is not considering a BOOT or PPP project. Transgrid is seeking a traditional style of EPC model.
	██████	With regards to the packaging strategy I believe I heard you said the clients preference was to adopt the East West split. Can you clarify this please and expand	Transgrid are seeking feedback from the market regarding the three package options. The questionnaire also allows for alternative packaging strategies to be raised.
██████ ██████	██████	Will contractors be constrained not to share information outside Australia, including email, CLOUD based storage etc?	Transgrid has operating licence constraints which does restrict what information can be shared overseas. There is requirement that certain type of information cannot leave Australia. Transgrid will work with individuals but there are requirements.
██████	██████	Is the RFT phase only for the parties in a preferred position.	Yes, the RFT phase is for parties that are participated in the ECI stage.
	██████	If HumeLink is broken into packages, would proponents be shortlisted for both packages or would proponents indicate a preference during EOI? How many proponents would be shortlisted per package? Can proponents be shortlisted for more than 1 package?	Participants will be shortlisted for both packages if an East and West packaging strategy is chosen.
	██████	Is the RFT phase just for the successful proponents?	Yes, the RFT phase is just for the proponents that are selected in the ECI phase.
	██████	So will ALL the ECI proponents also follow through to the RFT phase?	Yes, this is Transgrid's intention. We intend to have one more ECI participant than packages. If we have feedback for the market that 1 package is the preference, we will have 2 participants.  If the chosen packaging strategy is the East/West option, 3 participants will be in ECI phase and all will follow to the RFT phase.

<p>██████ ██████</p>	<p>██████████ ██████</p>	<p>Can one participant be selected for 2 different packages?</p>	<p>Yes, one participant can be selected for 2 different packages.</p>
<p>██████</p>	<p>██████ ██████████</p>	<p>Is the HumeLink project operated out of a dedicated TG office?</p>	<p>Like many organisations, there are a number of employees operating remotely. There have been thoughts about colocation for the HumeLink team including the main service provides and suppliers during the ECI phase.</p>
	<p>██████ ██████████</p>	<p>Can .kmz files be shared for the packages?</p>	<p>Yes, this will be shared during the ECI phase. This will be used to optimise the construction phasing and construction programming viewpoint to lower the risk to the project.</p>
<p>██████</p>	<p>██████████</p>	<p>What procurement packages are expected to remain with the Head Contractor?</p>	<p>The packaging strategy will be finalised after the Market Sounding phase.</p>

## Appendix G Summary of feedback received on key project commercial considerations

Risk	Description
Resource availability	The HumeLink Project schedule runs parallel to other major projects such as Central West Orana REZ.
Long lead procurement items	Procurement and supply chain constraints for the following items: <ul style="list-style-type: none"> <li>■ Transformers</li> <li>■ Transmission line structures</li> <li>■ Line reactors</li> <li>■ Synchronous compensator (STATCOM)</li> <li>■ Static VAR compensator (SVC)</li> <li>■ Intelligent Electronic Device (IED)</li> </ul>
Adverse weather patterns	The HumeLink project location is subject to high winds and recent rain events will need be factored in.
Site access	Site access approvals and investigations particularly around the Maragle Line and Substation being limited due to snow and weather.
Ground conditions	The ability and time to conduct sufficient study of Geotech and the ground conditions
Latent site conditions	Unforeseen site condition such as contamination
Route selection	This includes managing works that are required in National Parks.
Community engagement	The social licence and environmental approvals for the project.
Land Acquisition	Landowner requirements and agreements
Environmental Requirements	Fauna blocking access to certain areas of the project during certain times of the year amendments to the EIS approvals conditions Cultural and heritage constrains
Construction work camps	The potential need for construction work camps
Forex and inflation	Volatility of future currency and key commodities and equipment
COVID-19	Logistics and COVID-19 impacts
External Approvals	Determinations and approvals that are external to Transgrid
Geo-political issues	Delays to imported materials and equipment, including current global freight
Interface risk	Interface between packages for sequencing and third party agreements (if applicable)