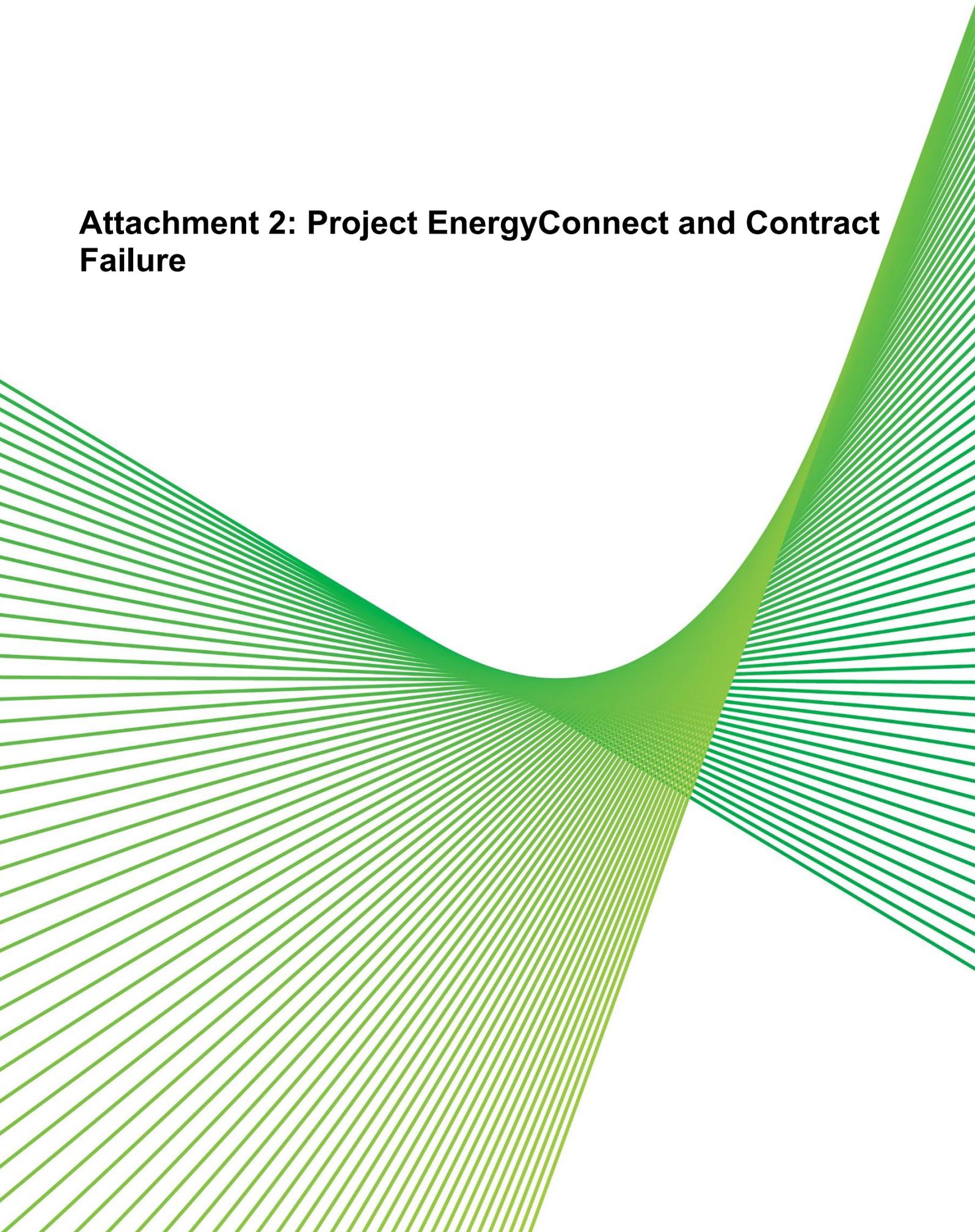


## **Attachment 2: Project EnergyConnect and Contract Failure**



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## 1. Purpose and key messages

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This Attachment forms part of Transgrid's application to reopen the 2023-2028 Revenue Determination in accordance with clause 6A.7.1 of the NER (**Application**).

The purpose of this Attachment is to provide a comprehensive summary of the PEC project timeline from the commencement of the project through to the failure of the Engineering, Procurement and Construction (**EPC**) contract. In particular, this Attachment provides further information on the selection of Secure Energy Joint Venture (**SEJV**) to deliver PEC under an EPC contract, the factors that led to the failure of that EPC contract, and the actions taken by Transgrid to enable the continued delivery of PEC in the best interests of consumers.

As a result of the actions taken by Transgrid, PEC will be delivered within a timeframe that will secure estimated net market benefits of \$964 million (see Attachment 3).

### Key messages

- Transgrid undertook a robust competitive procurement process to select SEJV in June 2021 with an EPC contract being the contracting model. The EPC contract contained terms and conditions which were either consistent with, or superior to, market standards at the time. Transgrid considered that it had secured the lowest risk contracting structure available in the market.
- To drive the prudent and efficient delivery of PEC, Transgrid actively managed the EPC contract in accordance with industry best practice. Specifically, the contractor was held to account in accordance with its contractual obligations. Given the importance of the project, Transgrid's Board were actively engaged from project commencement.
- Under the EPC contract, Transgrid's role was to act as contract manager rather than project manager. As such, Transgrid had no visibility of the contractor's actual and forecast financial losses for the project. Transgrid only had visibility of project delays and the contractor's claims for variations in accordance with the terms of the contract, which is entirely standard for EPC contracts.
- When project issues began to emerge from January 2023 onwards, Transgrid committed additional resources to monitor progress, and requested additional information from the contractor. The information obtained, on-going project delivery issues and Elecnor Australia's emerging cashflow problems indicated the need for a closer examination of the project timelines and costs.
- Between August and October 2023, further information was provided by Elecnor Australia and its parent company regarding the forecast costs to complete the project and its financial position. This cost information, combined with missed milestones, evidence of late payments to Elecnor Australia's suppliers and subcontractors, and lower than expected productivity, made clear the need for an alternative arrangement to the EPC contract. We refer to this outcome as Contract Failure.

## 2. Project background

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Project EnergyConnect (**PEC**) was first proposed in 1999<sup>1</sup>. Assessment of the Regulatory Investment Test for Transmission (**RIT-T**) commenced in June 2019. In January 2020, the Australian Energy Regulator (**AER**) determined that the preferred option identified in the RIT-T maximises the net economic benefits to the National Electricity Market (**NEM**) and therefore satisfies the RIT-T. At the time of that assessment, PEC was the largest and most logistically complex electricity transmission project undertaken in the NEM in many decades. It was, and still is, critical to creating a more sustainable and resilient energy network and supporting Australia's energy transition.

PEC is a critical piece of transmission infrastructure for the NEM that forms an integral part of the Australian Energy Market Operator's (**AEMO**) Optimal Development Path (**ODP**), both on its own and in combination with other actionable Integrated System Plan (**ISP**) projects. In 2021, The Clean Energy Finance Corporation announced PEC as its single largest investment, describing PEC as a "vital piece of energy infrastructure" as an interconnector and pathway to unlocking further renewable energy.<sup>2</sup> As a consequence, it will reduce wholesale energy costs and put downward pressure on retail prices.

In its 2024 ISP, AEMO made it clear that any delay in the delivery of actionable ISP projects, such as PEC, will compromise the most efficient path to maintain reliable and secure electricity supply as coal retires, and as such, all actionable projects should progress "as urgently as possible".<sup>3</sup> Today, the Federal government continues to recognise the importance of PEC as part of the National Renewable Energy Priority List.<sup>4</sup> PEC is also a Critical State Significant Infrastructure (**CSSI**) project and has been determined as essential to New South Wales by the NSW Minister for Planning. From a New South Wales perspective, PEC is delivering substantial economic benefits to regional New South Wales, including 1,500 new jobs and opportunities for a wide range of businesses.

PEC involves the construction of a new 330 kV interconnector between Robertstown in mid-north South Australia and Wagga Wagga in New South Wales via Buronga, with a further augmentation between Buronga and Red Cliffs. PEC will connect the energy grids in New South Wales, South Australia, and Victoria and enable the direct sharing of energy between these networks for the first time. From Wagga Wagga, PEC connects into HumeLink, then continues towards Wollongong and Sydney. A portion of PEC (from Dinawan to Wagga Wagga) will be integrated into VNI-West and converted to 500kV operation. In South Australia, PEC connects to the Mid North SA Renewable Energy Zone (**REZ**) Expansion project and strengthens system security for South Australia, featuring in the Commonwealth-South Australia Bilateral Energy and Emissions Reduction Agreement.

Transgrid is responsible for the New South Wales portion of PEC, which involves the construction of 700km of transmission line from the New South Wales/South Australia border to Wagga Wagga substation in two sections (Western and Eastern), via two new substations at Buronga and Dinawan. Preliminary works on

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<sup>1</sup> As 'RiverLink.'

<sup>2</sup> CEFC, [Historic CEFC investment to kickstart nation building Project EnergyConnect](#), 31 May 2021.

<sup>3</sup> AEMO, 2024 Integrated System Plan, June 2024, p. 16.

<sup>4</sup> DCCEE, National Renewable Energy Priority List, March 2025.

PEC commenced in 2018/19 with construction starting in late 2021. ElectraNet’s construction of the 206km long South Australian portion concluded in December 2023.

The western component of New South Wales PEC (referred to as ‘Separable Portion’ 1 (**SP1**) comprising Transmission Lines L1, L4 and Substation S1A) was energised on 24 August 2024. The eastern component of New South Wales PEC (referred to as ‘Separable Portion’ 2 (**SP2**) comprising transmission lines L2 and L5 and substations, S2 and S3. S1B is also included in this component) is forecast to achieve practical completion during September 2026 and be ready for internetwork testing during October 2026. Since Transgrid entered into a new contract with Elecnor Australia as the contractor, being the Incentivised Completion Cost (**ICC**) contract, site progress has been either on or, in the case of transmission lines L2 and L5, ahead of schedule.

Figure 1: PEC project update (December 2025)



PEC will bring substantial benefits to consumers, including:

- greater sharing of reserves, providing New South Wales with access to renewable generation as coal retires
- unlocking renewable generation development and allowing greater market access
- alleviating constrained solar generation in New South Wales and improving NEM access to high quality solar generation from South Australia
- decreasing price volatility through sharing of resources across regions
- reducing electricity prices through greater supply, diversity and competition
- supporting the energy transformation to a more intermittent based resource mix

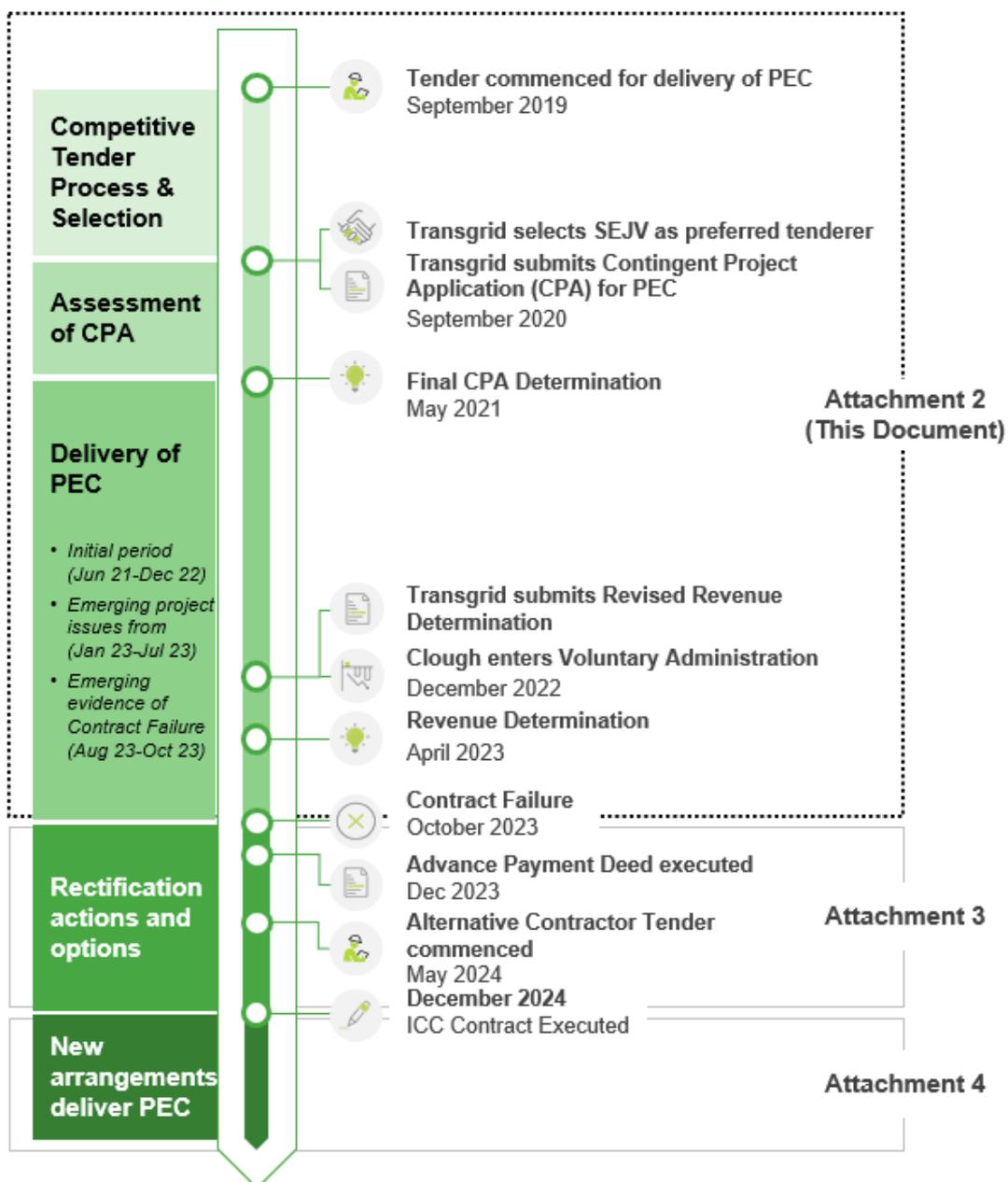
- reducing reliance on increasingly costly gas plants in South Australia for dispatchable capacity and for system stability
- allowing greater exports of embedded generation at times of minimum South Australia demand, and
- reducing vulnerability to extreme weather events and system disturbances, such as bushfires.

Despite the later than expected final commissioning, PEC remains a critical project to the NEM and will deliver substantial benefits to consumers.

### 3. Project timeline and entities

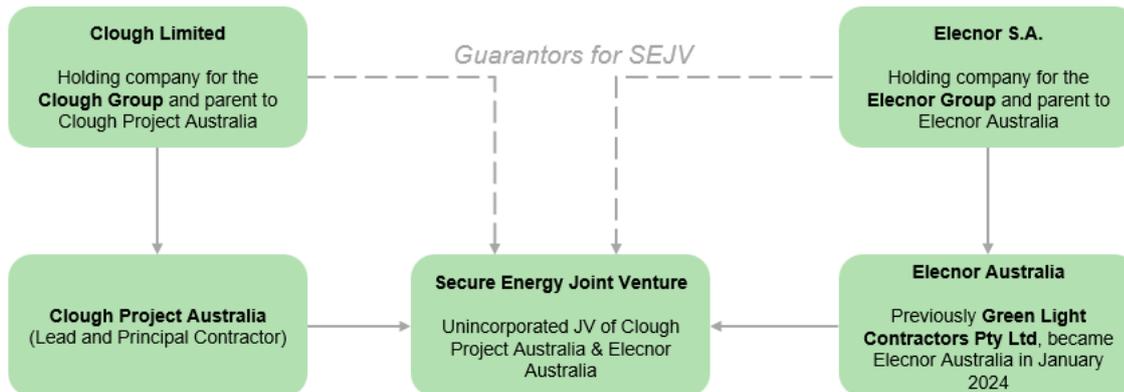
Figure 2 below illustrates the key phases and milestones in the project timeline that are relevant to Transgrid’s Application. The timeline commences with the process to select SEJV to deliver PEC under an EPC contract and ends with the establishment of the ICC contract with Elecnor Australia in response to the failure of the EPC contract. Further details on the timeline following Contract Failure are provided in Attachment 3, while details of the ICC contract and the unique protections it provides in relation to contractor performance is provided in Attachment 4.

Figure 2: PEC overview timeline



Several entities are referred to in the PEC timeline and throughout this document. SEJV refers to Secure Energy Joint Venture, which was an unincorporated joint venture comprising Clough Limited and Elecnor Australia (formerly Green Light Contractors Pty Ltd). Figure 3 shows the relationships between these entities.

Figure 3: Entities involved in the EPC contract for the delivery of PEC



In December 2022, Clough Limited entered into voluntary administration.<sup>5</sup> For ease of reference, while the EPC contract remained with SEJV following the Clough insolvency, this Attachment refers to Elecnor Australia rather than SEJV after December 2022. This is because Elecnor Australia was the sole contractor in SEJV from that date.

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<sup>5</sup> Clough, [Clough placed under Voluntary Administration](#), 5 December 2022.

## 4. Contracting approach and selection of SEJV to deliver PEC

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### 4.1 EPC contracting approach

Conceptually, the purpose of an EPC contract is that a contractor is engaged to plan, design and build a project for a predetermined price by a specified date, such that the owner can simply ‘turn the key’ on a fully operational project. An EPC contract is also known as a turnkey contract, however the term EPC will be used throughout the Application and in this Attachment. The price agreed by the contractor and project owner for an EPC contract at the outset is often higher than other contractual structures due to the project risks assumed by the contractor, which typically include design errors, supply chain disruptions, the cost of labour and materials, and most schedule delays.

A key feature and underlying contractual principle of an EPC contract is that the contractor is responsible for project delivery, and the project owner (in this case Transgrid) relinquishes day-to-day control and direction and has limited intervention capabilities. This extends to detailed data and information related to the project activities. Indeed, any perceived interference and/or direction/ requests from the project owner can lead to the contractor claiming variations and/or additional time and costs. From the project owner’s perspective, the advantages of an EPC contracting approach include:

- price certainty
- reduced change management challenges
- reduced likelihood of cost overruns, and
- a condensed project timeline due to the efficiencies of having a single design and construction contractor.

It is important to note, however, that the project owner has an essential role in the management of the contract. The fact that the EPC contract does not provide the project owner with a project management role does not lessen the importance of effective contract management. On the contrary, Transgrid recognised that the limitations on its involvement in project delivery heightened the need to ensure that the contractor was held to account in accordance with the terms of the EPC contract. As explained in this Attachment, Transgrid’s management and Board were actively engaged in the management of the EPC contract from project commencement.

Given the advantages of the EPC contract and Transgrid’s limited experience in delivering major transmission projects at that time, it was concluded that an EPC contract was the preferred approach to deliver PEC. Specifically, it was expected that an EPC contract would shield Transgrid and consumers from project risks in exchange for a fixed price contract that included a form of risk premium for the successful tenderer to assume those risks. This type of contract was a market standard contract at that time. Furthermore, it had been a standard type of contract for Transgrid’s BAU projects which the organisation was very experienced in managing, to deliver projects on time and within budget. The EPC contract was based on the internationally recognised ‘conditions of contract’ issued by the Fédération Internationale des Ingénieurs-Conseils Silver Book (**FIDIC Silver**). FIDIC Silver includes a risk allocation consistent with market practice for the procurement of major linear infrastructure and energy projects and included standard financial protections (including financial bonding, a step-in mechanism, and termination rights) and provided an appropriate basis for a competitive procurement process.

The market has now evolved such that EPC contracts are more the exception rather than market standard. In large part, this market evolution reflects the types of challenges faced on PEC. In June 2021, however,

the EPC contract was adopted as the preferred contracting model as it reflected the market standard at that time, and formed the basis of the competitive tender process which is discussed next.

## 4.2 Competitive tender process

Transgrid undertook a competitive and transparent procurement process through 2019 and 2020 to select a service provider to deliver PEC. The aim of the procurement process was to secure an EPC contract, which appropriately allocated risk, and to deliver PEC at a competitive fixed price and by a specified date.

Transgrid's tender process and its contracting decisions were entirely commercial matters for Transgrid and its Board, and not the responsibility of any other party. Nevertheless, Transgrid engaged with stakeholders including the AER, AEMO and consumer groups to provide an opportunity for key stakeholders to provide feedback, raise any issues with the procurement documents, process and structure. Between February and June 2020, Transgrid hosted fortnightly teleconferences for stakeholders on the tender process and key project developments. On 25 May 2020, a Transgrid Advisory Council (**TAC**) meeting was held to provide an update on PEC, including the procurement process. Transgrid's proposed approach received support. As already noted however, Transgrid's commercial decisions are its responsibility alone, and not the responsibility of the AER, the TAC or any other stakeholder.

During the procurement process for PEC, five tenderers submitted pricing information on Transgrid's Concept Design as well as non-price information for capability and capacity during the Request for Tender (**RFT**) Phase A process. Three shortlisted tenderers submitted detailed concept designs and pricing to develop a fully binding proposal capable of acceptance during the RFT Phase B process. Two shortlisted tenderers submitted refined concept designs and pricing in a best and final offer (**BAFO**) process.

Consistent with industry practice and other major projects in other markets being delivered at the time, Transgrid established an Evaluation Review Team (**ERT**), with specialist knowledge, skills or experience relevant to PEC. At each stage of the process, the ERT considered each submission and captured its findings in the ERT Report. The review team provided the ERT Report to the Tender Evaluation Panel, who assessed it and made a recommendation (based on its Evaluation Panel Report) to the Transgrid Board for endorsement.

The Tender Evaluation Panel consisted of members of Transgrid's Executive Team, the Project Director and an independent member with expertise in major projects. There was also an Observer Panel which included representatives from the South Australian Government, ElectraNet, AER, AEMO and the TAC. The role of the Observer Panel was limited to monitoring the Evaluation Panel process.

Each tenderer for RFT Phase A was assessed according to the non-price evaluation criteria, including:

- demonstrated capability to design and construct this major project in accordance with the scope and timelines set out in the RFT
- relevant experience with infrastructure projects over \$1 billion in value in Australia or other comparable jurisdictions
- demonstrated understanding of key project delivery risks and a robust supply chain strategy
- appropriate management structures for project delivery, and
- financial and contractual certainty, including appropriate credit quality to support contractual obligations under adverse scenarios.

Using the non-price and price information, three tenderers were shortlisted from RFT Phase A to progress to RFT Phase B, being CPB and UGL Engineering, Quanta Power Australia and SEJV.

During RFT Phase B the shortlisted tenderers were invited to firm up their pricing and provide a binding offer capable of acceptance. The two lowest cost bidders from Phase B were then invited to submit a BAFO to improve their proposals in select areas, (including cost) after, having been briefed by Transgrid on areas in their proposal that needed to be updated.

Each tenderer for RFT Phase B was assessed according to non-price evaluation criteria including the project solution (the level of certainty that the tenderer's design will achieve Transgrid's requirements), project delivery (delivering the project in accordance with Transgrid's key milestones whilst ensuring lowest whole of life costs for the project), the capacity and capability of key personnel, environmental and social sustainability factors, commercial risk (the level of acceptance of, risk allocations within the EPC contract) and commercial certainty and financial capacity to deliver the project (including provision of guarantees from the parent entity, sufficient security to support project delivery and appropriate Joint Venture terms, such as joint and several liability between Joint Venture partners).

The delivery program proposed by each contractor were broadly similar, although SEJV proposed an earlier delivery date for the practical completion of Buronga Substation.

Overall, SEJV's proposal was objectively a credible and convincing project delivery proposal and was predominantly based on Transgrid's concept design. There was also a high degree of confidence that:

- SEJV's design would achieve Transgrid's requirements
- the programme would meet delivery milestones, and
- SEJV would grow the workforce capacity in Australia, leaving a legacy of experienced transmission and substation operatives in Australia to support the energy transition.

Following the RFT-Phase B and BAFO phases, the differential in cost submitted between the two shortlisted tenderers was minimal. The tenderers were ultimately separated by non-price factors, for which there was clear distinction in favour of SEJV. The Tender Evaluation Panel concluded that the SEJV submission was superior overall, and SEJV provided a slightly lower price following risk adjustments.

By the end of the BAFO stage, SEJV had withdrawn many of its contract departures and were the closest to Transgrid's preferred risk position on matters such as provision of securities, parent company arrangement and Joint Venture terms. In addition, SEJV offered to provide Transgrid with bank guarantees with a total value of 10% of the contract price as security, compared to 5% which was market standard. As a result of this competitive procurement process, Transgrid engaged SEJV as the contractor to undertake the design, procurement, construction, commissioning and delivery of PEC in accordance with the EPC contract.

### **4.3 Key terms and conditions**

The EPC contract with SEJV included a contract price of \$1,504 million (Real 2023\$) and \$103 million (Real 2023\$) for provisional sums to be directed at Transgrid's discretion. The key features of that contract are summarised in Table 1 below.

Table 1: Summary of key terms and conditions for the EPC contract

Contract Feature	Explanation
Price	Transgrid was required to pay SEJV a fixed amount which included an allowance for SEJV's profit and overheads for the delivery of the project.
SEJV obligations	SEJV was required to design, construct, test and commission PEC as well as rectify any defects. This work was to be completed in a number of work portions called 'separable portions' which SEJV had to complete by specified dates. SEJV was required to provide Transgrid with high-level project updates on a monthly basis. Clough was named the Principal Contractor under work health and safety legislation, responsible for managing site-based work health and safety matters.
Transgrid obligations	Transgrid was required to obtain land access, environmental approvals, provide high-level design requirements and review design, construction and commissioning at certain milestones. Beyond this, Transgrid did not have the right to manage the project on a day-to-day basis. As explained in section 4.1 above, this is market standard for an EPC contract as the contractor bears cost and time risk of project delivery. As already noted, Transgrid's role as contract manager was actively and efficiently undertaken in accordance with the EPC contract.
Payment schedule	The fixed price was to be paid by Transgrid to SEJV monthly on a percentage complete basis in accordance with the Security and Payment Act.
Programme and delay damages	As noted above, the EPC contract included a number of separable portions. If SEJV did not complete the separable portions by the specified milestone dates, then it was liable to pay Transgrid delay damages for each day of delay. SEJV would be able to claim extensions of time to each completion date for some matters, such as a delay caused by Transgrid. The delay damages payable by SEJV were capped at 10% of the contract price, which is market standard for these types of contracts.
Security	As noted above, SEJV provided bank guarantees with a total value of 10% of the contract price as security for its performance under the EPC contract. In addition, Elecnor Australia's parent company and Clough Limited each provided parent company guarantees, to guarantee SEJV's performance under the EPC contract, up to a value of █████ of the contract price (being the limit of SEJV's liability under the EPC contract). In total, Transgrid held performance securities with a quantum of more than █████ of the contract price from Elecnor Australia's parent company ( <b>Performance Securities</b> ). Transgrid could claim the Performance Securities in various circumstances, including a breach of the EPC contract by SEJV.
Termination rights	Transgrid had the ability to terminate the EPC contract, including in the event of an unremedied SEJV default; abandonment; if the delay damages cap was exceeded; if certain safety incidents occurred; or if the contractor or a guarantor became insolvent.
Insolvency of one Joint Venture party	If one member of SEJV became insolvent, the other member had liability to fulfil SEJV's obligations in full under the EPC contract.

## 5. AER's assessment of Transgrid's contracting approach

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Transgrid submitted its contingent project application (**CPA**) to the AER on 30 September 2020. The CPA included capital expenditure forecasts that were based on the EPC contract awarded to SEJV. In May 2021, the AER's final decision largely accepted Transgrid's forecast capital expenditure, reducing it by 2.6 per cent to \$1,817.9 million (\$2017-18).<sup>6</sup>

A key factor in the AER's Determination to accept Transgrid's forecast was the robustness of the competitive procurement process undertaken to select SEJV. The AER was satisfied that the market testing of each line item meant the forecast capex reasonably reflected the efficient costs that were forecast to be incurred.

The AER's May 2021 assessment of the EPC contract's fixed price is relevant to this Application. While any commercial decision to enter into a contract is a matter for Transgrid, the comments made by the AER were consistent with the Board's assessment that:

- It was reasonable to conduct a competitive tender on the basis of a fixed price EPC contract, given Transgrid's limited experience in managing the construction of major transmission projects.
- The contract proceeded on the basis of a strong delineation of the roles, obligation, powers and responsibilities of the contractor and Transgrid.
- The fixed price in the EPC contract was the product of a competitive tender process, which implicitly included each bidder's pricing of the project risks.
- At the time of entering into the EPC contract with SEJV, there was no evidence that the fixed price was 'too low.' The AER's benchmarking evidence suggested that the contract price may have been on the high side of reasonable.
- It was prudent and efficient to enter into the fixed price EPC contract with the successful bidder following the conclusion of the competitive tender process.
- The EPC contract was soundly based and there was no reason to expect that PEC could not be delivered under the EPC contract.

As already noted, the decision to enter into the EPC contract was entirely a commercial decision taken by Transgrid's Board and is not the responsibility of the AER. The AER's review of the EPC contract price as part of its revenue setting process does not change the fact that the responsibility for executing the EPC contract sits with Transgrid. In the context of this Application, however, the AER's review illustrates that the terms of that contract, including the risk allocation and price, appeared to be reasonable at the time.

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<sup>6</sup> \$2,121.2 million (\$2022-23)

## 6. Early project period under the EPC contract

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The purpose of this section is to summarise the delivery of PEC under the EPC contract during the early project period from June 2021 to December 2022. As explained below, during this phase of the project the challenges that arose were typical of a large infrastructure project and were manageable within the terms of the EPC contract.

In the first year of the EPC contract, the design and procurement of critical equipment progressed as planned. Pre-construction activities were also progressed, including the approval of the Construction Environmental Management Plan (**CEMP**) for SP1 and submission of the CEMP for SP2 to the NSW Department of Planning, Housing and Infrastructure. Rationalisation of the transmission lines during the design process resulted in costs savings which were agreed between the parties. Construction of the enabling works commenced in 2022, with the performance of civil works progressing.

Whilst Transgrid had been successfully delivering projects on time and budget under fixed price terms and conditions over a long period of time, Transgrid understood the need to bring in specific resources with the experience of delivering a project of the scale and logistical complexity of PEC. Transgrid appointed a Project Director with extensive experience in major projects, overseas and in Australia, including overseeing significant portfolios of major projects in Western Australia and New South Wales. Given the nature of an EPC contract, Transgrid provided an appropriate level of resourcing suitable to perform its contract management function, noting that, under the terms of the EPC contract, the delivery of the project was the contractor's responsibility.

Transgrid administered the EPC contract consistently with the terms of the contract and the Contract Administration Manual provided by external legal advisors. As explained in sections 4.1 and 4.3 above, the EPC contract placed significant obligations on the contractor, making the contractor fully responsible for delivery of the project, with limited obligations and rights placed on Transgrid. The obligations that Transgrid fulfilled included:

- Reviewing designs and monthly reports provided by SEJV, ensuring they complied with the EPC contract. All documents were carefully reviewed by Transgrid with the support of Transgrid's Owners Engineer, Beca Australia.
- Responding to risks raised by SEJV and notifying SEJV of any factors impacting the project, such as planning approval delays.
- Obtaining the planning approvals for SP1 and SP2 from the NSW Department of Planning and Environment.
- Administering the EPC contract by assessing and responding to the programmes and reports provided by SEJV, identifying any non-compliance with the EPC contract, identifying defects and serving notices in those instances where, in Transgrid's view, the contractor failed to comply with the requirements of the EPC contract.
- Assessing the work and services described in the EPC contract to confirm SEJV's entitlement to payment, prior to making any contract payments.
- Managing land access and organising the outages on the Transgrid network necessary for SEJV to complete its work.

In this early period, SEJV and Transgrid resolved minor variations to the scope of the EPC contract, including route variations. Where SEJV provided substantiation of the variations, Transgrid was able to determine the value of the variations and adjust the contract sum accordingly, a standard occurrence on infrastructure projects.

### **Submissions to the AER**

On 2 December 2022, Transgrid made a submission to the AER on PEC together with its revised revenue proposal for the 2023-2028 Regulatory Control Period (**RCP**). In that submission, Transgrid affirmed that it was committed to delivering PEC in line with the approved capex allowance of \$2,008 million.

As part of the AER's consultation process on the 2023-2028 RCP, SEJV wrote to the AER in January 2023 noting that the project faced unforeseeable costs of approximately \$250 million associated with COVID-19 and other supply chain shocks (such as the Ukraine War) that were clearly not contemplated (or capable of such) at the time of the contract tender. SEJV considered that these unforeseen costs should be recovered from consumers and commented that it was not seeking an additional margin in relation to these costs. The AER's final determination for Transgrid did not make any allowance to address SEJV's submission.

### **Clough Insolvency**

In October 2022, Transgrid became aware that Clough Limited (parent company to Clough) was facing financial issues. Transgrid took steps in response to the potential insolvency of Clough Limited and its subsidiaries, such as approving a power of attorney that would allow senior officers of Transgrid to call on the bank guarantees provided by Clough under the EPC contract.

In December 2022, Clough Limited entered into voluntary administration.<sup>7</sup> In mid-December 2022, in accordance with Elecnor Australia's obligations under the EPC contract, Elecnor Australia gave notice to Transgrid that it would fulfil SEJV's obligations under the EPC Contract, taking full operational and financial control of SEJV, as well as sole liability and responsibility for the delivery of the project.

As already noted, for the remainder of this Attachment we refer to Elecnor Australia rather than SEJV, as Elecnor Australia is the remaining contractor in SEJV from December 2022 onwards. However, the contractual obligations remain with SEJV.

### **Severe weather and flooding disaster declaration**

Severe weather and flooding events occurred in regional New South Wales in 2022 and in September 2022, the New South Wales Government declared a 'natural disaster declaration' in local government areas (including Wentworth (Buronga) and Central Darling (transmission Line 1) shires).<sup>8</sup> These events impacted the project construction sites for multiple lines from November 2022 to February 2023, requiring a cessation of works for between one and three months.

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<sup>7</sup> Clough, [Clough placed under Voluntary Administration](#), 5 December 2022.

<sup>8</sup> NSW Government, [Natural Disaster Declaration – NSW Severe Weather and Flooding AGRN 1034](#), 14 September 2022.

During this period, water levels in the Lachlan, Murrumbidgee, Murray, Darling and Great Darling Anabranh and their tributaries increased. Rising water levels at the Great Darling Anabranh were due to river flows from further upstream and engineered river outflows (water releases) from the Menindee Lakes.

Transmission Line 1 crosses the Anabranh with additional towers within the Anabranh flood plains, none of which were accessible. Softened ground conditions prevented heavy plant machinery gaining access to the work fronts for transmission Line 4 and access for equipment necessary for drilling and concreting foundations for tower erection. Numerous potential archaeological deposits were also swamped and could not be reached to commence and/or complete salvage works. Rising water levels at Buronga substation created unsafe ground conditions, preventing completion of essential civil works including bulk earthworks, conditioning, spreading subgrade material for the pad, compacting and testing fill material. Work was stopped onsite at camp 6 in November 2022 due to the unsafe conditions arising out of the wet and boggy conditions at this location.

Construction at the affected sites was only able to recommence in February 2023. Notwithstanding the delays caused by the severe weather and flooding events, delays of that nature are not unusual in the context of large, complex infrastructure projects. At the time, Transgrid considered that those delays could be managed within the EPC contract.

### Engagement with Transgrid's Board

Given the importance of PEC, and Transgrid's role as contract manager rather than project manager, Transgrid's management of the EPC contract included regular engagement with Transgrid's Board as part of the internal governance process to ensure that significant contract risks and challenges were identified and actioned in a timely manner. The following points summarise the issues that were raised with Transgrid's Board and the actions taken by management in response to emerging issues:

- **Regulatory and approvals environment:** Delays in regulatory and environmental approvals created uncertainty around project milestones. Management responded by intensifying engagement with State and Commonwealth agencies to secure outcomes and maintain momentum.
- **COVID-19 impacts:** Fieldwork and stakeholder engagement were impacted by the pandemic, which necessitated changes to working practices. Adaptive planning, remote consultation, and resourcing adjustments were implemented to mitigate these impacts and sustain progress.
- **Stakeholder and community engagement:** Effective stakeholder and community engagement in response to project design issues. Management adopted a proactive communication approach, supported by consultation forums and the provision of clear information materials.
- **Contractor and commercial risks:** Performance issues and unresolved disputes with delivery partners were managed proactively, noting the consequential impact on program and financial risks. Management responded through escalation to executive committees, targeted workshops, and preparation of fallback strategies to protect delivery confidence.
- **Program readiness:** Construction readiness was safeguarded through detailed planning, including the refinement of environmental management plans, countdown schedules for key milestones, and close monitoring of property and interface agreements.
- **Project delays and claims management.** Project delays and claims managed and reported, in addition to concerns regarding contractor performance concerns, particularly where timelines and costs were

impacted. Management enhanced its oversight of contractor claims and committed additional resources to minimise delays and cost impacts.

In summary, Transgrid did not adopt a 'hands off' approach to its role as contract manager. The active engagement of Transgrid's Board from project inception is evidence that the successful delivery of PEC had the full attention of Transgrid's Management team and Board. Further detailed information on the specific project timelines and emerging challenges are set out below.

## 7. Emerging Project Issues: January 2023 – July 2023

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Over the seven months between January and July 2023, financial, project and operational issues began to emerge. In the remainder of this section, we discuss these emerging issues in relation to three topics.

- contract claims and forecast losses
- program slippage, and
- cashflow support.

As explained below, these issues were not regarded as unusual for a major infrastructure project and could be managed within the terms of the EPC contract. As issues emerged, Transgrid took appropriate action to ensure that the contractor was held to account, while committing additional resources where necessary to resolve claims, monitor contractor performance and ease cashflow problems.

### Contract claims and forecast losses

Elecnor Australia raised financial issues with Transgrid, including forecast cost overruns, contract losses and contract claims, which are explained below<sup>9</sup>:

- **Cost overruns** refer to how much more a contractor expects to spend by the end of the project compared with their original cost estimates.
- **Contract losses** refer to losses that a contractor expects to incur at project completion. However, contractors sometimes include the profit margin in describing losses, so a 'loss' arises if profit margins are lower than expected.
- **Contract claims** refer to amounts that a contractor considers they are entitled to under the terms of the contract and does not necessarily reflect the contractor's actual costs.

By March 2023, Elecnor Australia submitted various 'contract claims', which were categorised as Group A, B, and C, as explained below:

**Group A 'contract claims'**: these were variation and extension of time claims that Elecnor Australia had issued under the EPC contract [REDACTED]. The quantum of claims made by Elecnor Australia, while significant, did not raise concerns because in Transgrid's experience, claimed amounts often reflect an opening position for further negotiation. Transgrid was, and is, judicious in its assessment of claims from any contractor and only agrees valid, substantiated claims issued strictly in accordance with the contract and costs which were actually incurred and properly evidenced. [REDACTED]

**Group B 'hyper escalation'**: these were cost claims of [REDACTED] as a result of what Elecnor Australia referred to as 'hyper-escalation'. Elecnor Australia acknowledged that under the EPC contract it had no contractual or legal entitlement to claims for 'hyper-escalation' and Elecnor Australia did not provide supporting evidence to substantiate these amounts. Transgrid considered and acknowledged Elecnor

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<sup>9</sup> Where amounts are reported in this attachment, these are generally provided as nominal amounts to retain consistency with the information and data available at the time.

Australia's concerns but held the view that Elecnor Australia had no contractual entitlement to a settlement for hyper escalation issues and as such these were a risk to be managed by the contractor.

**Group C 'additional costs'**: these were claims in relation to future cost and time claims associated with Clough administration, which Elecnor Australia had no legal or contractual entitlement to claim for and which were not substantiated. These claims were not considered valid.

In the context of a project like PEC, it is typical for the project owner (in this case Transgrid) to receive a range of claims, some of which are not well substantiated or grounded in the terms of the contract. We describe this strategy as the contractor undertaking a claims initiative, whereby it seeks to advance both contractual entitlements under the EPC agreement and, often more material, non-contractual assertions without meeting the evidentiary, factual, contractual entitlement and/or valuation standards required. The best practice approach from a contract management perspective is to hold the contractor to account in accordance with the terms of the EPC contract. From a strategic perspective, to manage a contractors' claims initiative effectively, it would not be appropriate for Transgrid to seek open book access, as the objective is to hold the contractor to account in accordance with its obligations under the EPC contract.

Transgrid's executives met with Elecnor Australia's parent company on 24 April 2023, during which the parent company advised that its expected losses for the project were around \$400 million and that Elecnor S.A. would not support Elecnor Australia financially. Elecnor Australia's parent company conveyed that without a resolution to these issues, progress on parts of the project would be at risk.

Transgrid's view was that Elecnor Australia's parent company's statements were part of its negotiating strategy to seek recovery of the Group B and Group C claims, as part of its claims initiative. As explained above, such approaches are not unusual and should be (and in this case, were) met by enforcing the terms of the contract. Furthermore, Transgrid understood that the claimed losses were below the value of the Performance Securities and, therefore, Elecnor Australia remained incentivised to deliver the project. Acting in the best interests of consumers and consistent with best practice contract management, Transgrid continued to enforce the terms of the EPC contract.

### **Program slippage**

Construction commenced five months later than planned, primarily due to planning approval delays. Once construction commenced however, the project began to slip behind the revised program.

As work on site progressed, the forecast productivity levels for Line 1 were not being achieved. For example, the drilling for foundations in the tender was forecast to take one day, whereas the actual time taken was up to five days. Line 1 tower assembly was on average 22% slower than tendered and tower erection 40% slower. This slower productivity in assembling and erecting each tower multiplied over the >200 towers led to cumulative slippage against the forecast program.

Figures 4 and 5 below show the slippage in the assembly and erection of towers on Line 1 between the September 2022 program and actuals. Orange bars represent how many towers needed to be assembled and erected each month and blue bars represent when the towers were assembled and erected. The graphs show that Elecnor Australia's production was slipping behind the program every month. While it is more challenging to measure substation productivity, it became evident that the substation works were also falling behind schedule.

Figure 4: Line 1 Assembly

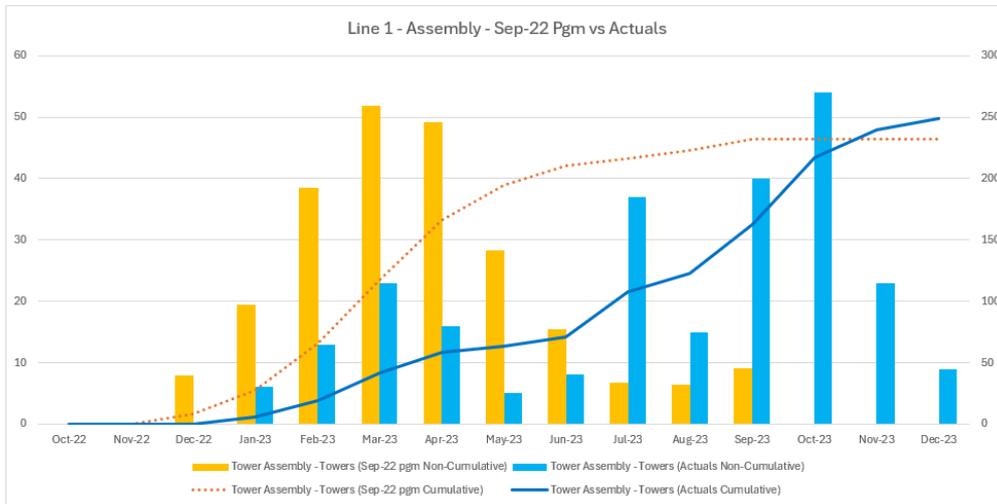
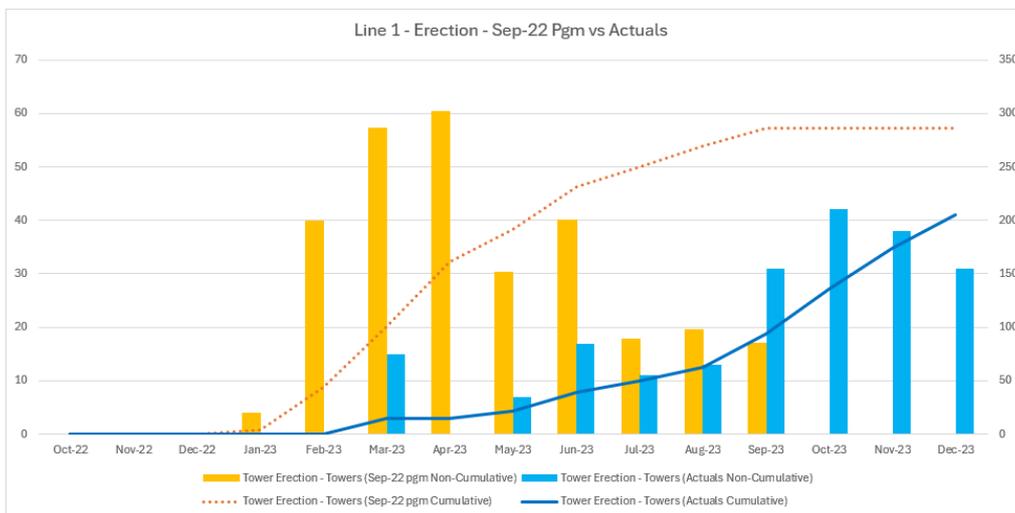


Figure 5: Line 1 Erection



In June 2023, Transgrid sought further information from Elecnor Australia and began conducting its own assessment of Elecnor Australia’s progress. Transgrid understood the overall delay in progress was amplified by resource constraints that Elecnor Australia, as well as other contractors, were encountering leading to less active work fronts. At that time, the expectation was that these resource constraints would ease once Labour Agreements<sup>10</sup> and visas for overseas workers were resolved. Similarly, although Elecnor Australia had encountered a higher than expected number of defects in the foundations, which paused tower erection, it was expected that productivity would increase once these issues were resolved.

<sup>10</sup> The Labour Agreement with the Federal Government was in Clough’s name, and it took several months for Elecnor Australia to transfer the Labour Agreement into its name. This had an impact on Elecnor Australia’s ability to hire skilled foreign workers, in turn causing material delays to the project.

It is not uncommon for construction projects to initially lag behind the program schedule, as contractors grapple with the size, complexity and scale of the project. A learning curve is common in tower assembly and erection as work crews become familiar with the type of tower, especially given that Line 1 included guyed towers which had not been constructed in Australia before. Given Elecnor Australia's experience with projects of this complexity, Transgrid formed the opinion that it could recover lost time or at least minimise the impact on completion dates from these early delays by optimising the project schedule.

It is important to note that the insolvency of Clough in December 2022 resulted in a significant loss of management and project systems and information that affected Elecnor Australia's ability to accurately forecast the costs of completing PEC, as Elecnor Australia was unable to access any project data, including schedule data. These gaps were only fully addressed by mid-2024, which made it difficult for Elecnor Australia (and therefore Transgrid) to address the full extent of the financial challenges facing the project.

Despite these challenges, Elecnor Australia had committed to taking on sole responsibility for the delivery of PEC following Clough's insolvency. Transgrid therefore held the view that despite this loss of management systems and information, Elecnor Australia remained committed to delivering the project and there was no compelling reason to believe that PEC could not be completed under the terms of the EPC contract.

### **Cash flow support**

Between April to July 2023, Elecnor Australia raised concerns regarding the project cash flow resulting from a misalignment in payment dates between when Elecnor Australia was required to pay suppliers of high value large specialist equipment and when Elecnor Australia was paid by Transgrid under the EPC contract. In May 2023, to understand the breadth of the issues, Transgrid requested monthly cash flow reports and additional progress reports. Elecnor Australia was not required to provide such information under the terms of the EPC contract, and in response Elecnor Australia only provided high level information.

To help ease these impending cash flow issues and ensure that Elecnor Australia remained focussed on project delivery, Transgrid agreed to advance cash payments of \$42 million (nominal) in relation to the purchase of synchronous condensers. This arrangement was given effect through a side deed, executed on 27 July 2023, which ensured that Transgrid took legal title to the synchronous condensers while the risk and liability for their transportation and installation remained with Elecnor Australia. The effect of the side deed was to benefit subcontractors through improved cashflow, while preserving the fixed price secured under the EPC contract.

### **Conclusion**

The project issues that emerged over the period January to July 2023 were not considered unusual in the context of a major infrastructure project and could be managed within the terms of the EPC contract. While the value of the side deed to ease Elecnor Australia's cashflow problems was modest compared to the total contract price, Transgrid concluded that a closer examination of Elecnor Australia's financial position and its costs of completing the project was warranted. Section 8 below outlines the action taken by Transgrid from August 2023 to October 2023.

## 8. Emerging evidence of Contract Failure: August 2023 to October 2023

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From August to October 2023, compounding project issues escalated significantly and at pace, creating a complex project landscape that ultimately culminated in the Contract Failure. The key events from this period are described below.

### **Transgrid's cost and programme review**

On 8 August 2023, following Transgrid's request for open book access, Elecnor Australia provided Transgrid open book access to the cost to complete data and this access enabled Transgrid to review Elecnor Australia's forecast cost to complete and its projected work programme. At that stage, Transgrid's initial assessment was that the programme was likely to take longer than indicated by Elecnor Australia, which would in turn result in higher Forecast Final Cost (**FFC**), being the actual cost plus forecast cost to complete.

In August 2023, to firm up Transgrid's own view of Elecnor Australia's FFC, Transgrid developed an Integrated Master Schedule (**IMS**) to identify a more realistic programme. The IMS was used to model alternative scenarios based on different productivity rates and available resources derived from Elecnor Australia's data and Transgrid's own experience. The IMS pointed to a material delay to practical completion for both separable portions: SP1 from July 2023 to May 2024 and SP2 from August 2024 to February 2026. Transgrid found that the differences in the Transgrid and Elecnor Australia programmes were due to differences in the critical assumptions used by Elecnor Australia and Transgrid when preparing their respective programmes.

At the same time, Transgrid also prepared a detailed FFC which predicted that Elecnor Australia's FFC would be between \$2,224 million and \$2,827 million and that Elecnor Australia would incur additional costs, above contractual obligations, to complete the project of between \$429 million and \$893 million.

Alongside its own internal analysis, in August 2023, Transgrid commissioned Fission to provide an alternative view of Elecnor Australia's FFC. The report estimated that Elecnor Australia's FFC would be between \$2,357 million to \$3,094 million, being a cost overrun of \$678 million to \$1,415million.

### **Causes of the increase in Elecnor Australia's FFC**

From Transgrid's perspective, it was apparent that the principal cause of the increase in Elecnor Australia's FFC related to project delay, which drives the time-based costs associated with sustaining and managing construction teams and camp sites. As PEC requires delivery over an extensive geographical area, these costs are substantial. As explained in sections 6 and 7, there were a multitude of factors that contributed to delay and, furthermore, these factors had a compounding effect on Elecnor Australia's costs. In addition, the cost consequences of delay were exacerbated by changes in market conditions, which meant that the remaining scope of work needed to be delivered in a more challenging market environment where prices for materials and labour reflected supply constraints. The cost impact of delay in this instance is particularly significant, given the substantial increase in the cost of delivering transmission projects since the EPC contract was signed in June 2021.

Given the complex interaction of the various causes of the substantial contract losses, it is not possible to ascertain the contribution of each element. The evidence from Fission and Transgrid's own analysis however, indicated that Elecnor Australia's FFC had increased substantially. As a practical matter, it is also important to note that estimates of the cost to complete the project continued to evolve as project delivery progressed and new information became available.

### **Performance security from Elecnor Australia's parent company**

Under the EPC contract, Elecnor Australia had provided bank guarantees of \$127 million (separate to the Clough bank guarantee of \$109 million) and Elecnor Australia's parent company had provided a parent company guarantee of [REDACTED] of the contract price (as revised), which was at that time approximately [REDACTED]. Transgrid was concerned that the magnitude of the forecast cost overruns were highly likely to exceed the protections Transgrid could claim under the EPC contract and that Elecnor Australia's parent company would consider it in their commercial interest to abandon the project.

During this period, Transgrid considered the risks, duration and process for enforcing the parent company guarantee, in light of the risk of Elecnor Australia abandoning the project. Given the magnitude of the cost overruns, if Transgrid were to attempt to enforce the EPC contract, this could result in the termination of the EPC contract, whereupon Transgrid could call on the parent company guarantee. From Transgrid's perspective, taking legal action to recover damages under the parent company guarantee remained an option that was available to it and provided leverage during any commercial negotiations with Elecnor Australia. Transgrid was also cognisant of the protracted nature of legal action, of between 5-7 years to recover damages under the parent company guarantee.

### **Executive negotiations**

In the first week of September 2023, executive Management from Transgrid and Elecnor Australia's parent company met in person, in Madrid, to discuss the issues being experienced on the project. These negotiations were commercial in nature and during these meetings, Elecnor Australia's parent company highlighted to Transgrid that in their opinion, a commercial resolution was critical to resolve the ongoing project issues and, in particular, the losses on the project that Elecnor Australia's parent company claimed it was facing.

On 2 September 2023, during a Board meeting, Transgrid Management reported to the Transgrid Board that although the executive negotiations in Madrid were helpful, it was becoming clear that if Elecnor Australia were to successfully deliver PEC, a commercial resolution outside of the EPC contract was critical. Management explained the form and quantum of a commercial resolution being considered and Management would seek Board approval of any proposed resolution.

### **Evidence of delayed payment of Elecnor Australia's suppliers and subcontractors**

In September and early October 2023, there was evidence of delays in payments by Elecnor Australia to suppliers and subcontractors due to further cash flow challenges. Transgrid was contacted directly by Elecnor Australia's subcontractors and received copies of overdue invoices from suppliers that were yet to be paid. Furthermore, Transgrid's review of Elecnor Australia's project accounts indicated that, absent additional funding, Elecnor Australia would soon have insufficient funds to make payments on time to suppliers and subcontractors.

In response to the cash flow issues and meetings with Elecnor Australia's parent company on 23 October 2023, the parties entered into a staged payment deed, providing further cash flow relief to the earlier synchronous condensers deed referred to in section 7. Under this deed, Transgrid agreed to advance payments under the EPC contract to Elecnor Australia for the payment of suppliers and subcontractors in exchange for ownership of materials, designs and large specialist equipment.

## Conclusion

In summary, during the period August to October 2023 it became evident from the estimated FFC for Elecnor Australia, late payments to Elecnor Australia's suppliers and subcontractors, and productivity levels falling further behind, that the project was experiencing profound, systemic issues that were hindering successful delivery of PEC under the EPC contract. As explained in the next section, these factors culminated in the Contract Failure as a result of their cumulative financial impact on Elecnor Australia.

## 9. The event – Contract Failure

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The circumstances described in the previous section culminated in Contract Failure, which means that the construction of PEC would not be completed by SEJV under the existing EPC contract and, if PEC were to proceed, an alternative arrangement to delivery under the EPC contract would be necessary.

Transgrid's Board recognised and accepted that Contract Failure had occurred on 25 October 2023 on the following grounds:

- It was apparent without intervention from Transgrid, or further support from Elecnor Australia's parent company, the successful completion of PEC by Elecnor Australia under the EPC contract was not possible.
- The financial position of Elecnor Australia was precarious. Elecnor Australia was experiencing significant negative cash flows (which had been mitigated only temporarily by [REDACTED] the synchronous condenser deed and staged payment deed).
- The magnitude of Elecnor Australia's projected losses under the contract were substantial and insurmountable for Elecnor Australia, and Elecnor Australia's parent company made it clear it could not provide ongoing support.
- If Transgrid did not respond to the situation, Elecnor Australia would most likely enter into voluntary administration, and completion of PEC would be at significant risk and significantly delayed with the FFC, including Transgrid costs, in the order of \$4,927 million (as estimated by Fission in the scenario where a new delivery partner needs to be selected, and excluding any recovery from Elecnor Australia's parent company).
- Management recommended to the Transgrid Board, for the first time, that significant action outside of the EPC contract was required and a substantial increase in the contract price would be required initially. However, Transgrid considered that Elecnor Australia had understated its losses and further negotiations would likely be required at some point prior to completion of the project.

A detailed explanation of Transgrid's approach to rectifying the contract failure, including the options analysis, is provided in Attachment 3.

## 10. Appendices

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The following appendices provide further information on the factors leading to Contract Failure as well as external analysis on the emerging forecast cost to complete:

- Appendix 2a - Letter of support, Elecnor Australia, and
- Appendix 2b - Cost estimate reports, Fission.