SUPPLEMENTARY SUBMISSION TO AEMC TRANSMISSION FRAMEWORKS REVIEW SECOND INTERIM REPORT - NATIONAL CONNECTIONS MODEL

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FINAL

Contents

1 Background

This supplementary submission[1] provides additional detail on the potential for increased competition in connections to the shared transmission network.

It outlines the key features and benefits of a feasible alternate national[2] model for connections. The alternate model builds on the AEMC's recommendations to improve the negotiating position of connection applicants[3], with the one significant difference being contestable provision by *any* registered Transmission Network Service Provider (TNSP) not just the incumbent TNSP, for the construction, operation and maintenance of shared network assets beyond the interface with the incumbent TNSP's existing assets. The model can be applied equally to generation and load connections but the main focus of this paper is generation connections.

2 Overview of proposed model

This section outlines the key characteristics and drivers for the alternate model.

2.1.1 Objectives and outcomes sought

The principal objectives of the alternate model are to:

- *Promote efficient pricing.* Competition in the provision of transmission services is likely to produce more efficient outcomes than competition solely in the construction of transmission assets, as it promotes transparency and increases the scope for innovation in technical approaches. By actively promoting the entry of new TNSPs to deliver the services to the connection applicant the model will generate innovation in service delivery, with competition driving efficient prices, more efficient and effective risk allocation, and ultimately, overall cost benefits to end users.

  The technical requirements and commercial priorities of connection applicants, particularly generators, vary considerably and can be better accommodated under a model that promotes competition encouraged by greater transparency and drives innovation. Regardless of whether connection applicants choose to engage the incumbent TNSP or a new TNSP, the existence of, or credible threat of, competition introduced by the alternate model is likely to improve pricing outcomes for connecting parties.

- *Address information asymmetry*. Provide the connection applicant the right information to make investment decisions supplied independently by AEMO on the system and technical requirements associated with the new connection, with requirements described in terms of performance capabilities and outputs, not assets. The market can then best develop efficient, innovative solutions to achieve the desired outcomes. The model also provides preliminary confidential information to the TNSP market only as early as practicable. This is designed to allow potential transmission service providers to ready themselves for a tender application. The model requires greater involvement from the AER, who will oversee and enforce the development of a national negotiating framework, building on the AEMC's recommendations.

- *Encourage efficient, timely investments.* The emergence of new TNSPs eligible to deliver the services to the connection applicant will drive efficient and timely construction periods, which are ultimately a benefit to the end consumers. By improving the quality, timeliness and transparency of information provided, the model will improve relationships and negotiated outcomes between connection applicants and TNSPs. Each will gain a better understanding of the project requirements, timeframes, risk mitigation measures and work together to achieve whole of market results.

[1] AEMC, Second Interim Report – Transmission Frameworks Review, 15 August 2012

[2] The alternate model is ***not*** the same as the Victorian procurement model under section 50C of the National Electricity Law, and Chapters 5 and 8 of the National Electricity Rules. The connection applicant (not AEMO) would procure relevant services from a registered TNSP of its choice.

[3] That is, the recommendations in Chapter 6 of the AEMC's Second Interim Report, above n.1

The model does not alter the National Electricity Rule technical or security requirements associated with registration, commissioning of new assets, physical connections and performance standards.

These objectives and outcomes support the national electricity objective to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to price, quality, safety, reliability, and security of supply of electricity; and the reliability, safety and security of the national electricity system.

2.1.2 Key features

The alternate model would apply to augmentations to the shared transmission network that are needed to support a new connection and are fully funded by the connection applicant. The assets that comprise the augmentation would be all transmission system assets bounded by the interface with an existing transmission line and the connection point, including both shared network assets and the applicant's fully dedicated connection assets. Those assets to the transmission system would be constructed on a contestable basis, and owned and operated by any entity eligible to register as a TNSP under the National Electricity Rules that:

- satisfies any jurisdictional licensing requirements, and
- does not breach *Competition and Consumer Act 2010* or jurisdictional requirements in terms of cross-ownership and competition impacts.

As is the case now, the connection applicant requests the incumbent TNSP to undertake the works, with negotiations to proceed in accordance with the AER determined negotiating framework. The model is capable of accommodating the AEMC's proposed option to allow connection applicants to request an incumbent TNSP to construct connection assets beyond the existing shared network where those assets are fully dedicated to the applicant[4], with such negotiations also covered under a national negotiating framework.

The alternative model allows for the connection applicant to negotiate with *any* eligible registered and licenced TNSP in accordance with the AER's approved negotiating framework.

Additionally, the alternative model would allow for a connection applicant to choose to become a TNSP, if it satisfies the registration, licensing and competition requirements noted above. In this situation the connection applicant's activities in its capacity as a TNSP would be governed by the National Electricity Law and Rules and applicable jurisdictional requirements. Arrangements and accountabilities for the delivery of the services would need to be documented as they would be in a connection agreement, but amendments to the Rules may be required to recognise the possibility that a TNSP would not be required to actually contract with itself.

To enable new TNSPs to provide shared network services to connection applicants on a competitive basis, the proposed alternate model would incorporate the following key features:

- Provision of relevant technical information to the market early in the connection enquiry process by AEMO outlining the associated network capability requirements.
- Ability for the connection applicant to choose which TNSP undertakes the work to meet those requirements.
- Development of connection enhancements flagged by the AEMC in its Second Interim Report, in particular enhanced information and transparency provisions[5].

[4] The AEMC refers to this an option for connection applicants to require a TNSP to provide an 'extension' between shared network augmentations or connection assets and the connection applicant's facility, with the works to be provided as a *negotiated transmission service*. See page vii and section 6.3.2 of the AEMC's Second Interim Report. The terminology here is not important as different people define connection assets and shared network augmentations differently. AEMO is concerned with enabling competitive service provision where feasible, and clear accountability for the performance of shared network asset and physical connections from a competition and system security perspective.

[5] AEMC, Second Interim Report – Transmission Frameworks Review, 15 August 2012, Chapter 6

- Minimum requirements of standards are met as required through the Rules or jurisdictional laws.
- A greater role for the AER in the connections process

The alternate model would be applicable to future connections and any subsequent changes to definitions regarding assets would need appropriate transitional arrangements and grandfathering provisions.

3 Detailed alternate contestable model framework

This section provides additional detail on how the proposed competitive model could work in practice considering first the key components that determine its application and scope, and then the processes and procedural steps that would be required.

3.1.1 Application and scope

Table 1 outlines suggested components of national arrangements for contestable transmission connections and augmentations.

Table 1 – Scope and decision makers in alternate national model

Component	Proposal
Which connections?	All connections
Which assets?	All transmission system assets bounded by the interface with an existing transmission line and the connection point, including both shared network assets and the applicant's fully dedicated connection assets.[6] The interface assets would be negotiated under fair and reasonable terms are under a non-contestable framework
Which entities could own and operate assets?	For any negotiated shared network or connection services, the entity must: • be eligible to register in the NEM as a TNSP • satisfy any jurisdictional requirements (e.g. licensing) • not breach the Competition and Consumer Act or jurisdictional restrictions on cross ownership
Which entities could construct assets?	For both negotiated shared network assets and fully dedicated connection assets, the entity should be engaged by the connection applicant or TNSP that will own and operate the asset (and could be constructed by the connection applicant itself)
Who selects the TNSP?	The connection applicant
What obligations would apply to the incumbent TNSP?	As is current practice, an obligation to connect the applicant (through interface works, potentially via a physical connection to assets of a new TNSP), on fair and reasonable terms, in accordance with its AER approved negotiating framework A fall back obligation to construct, own and operate new shared network and connection assets that will form part of the transmission system if requested by a connection applicant, on fair and reasonable terms, in accordance with a new AER approved negotiating framework, including

[6] This is consistent with existing provisions in Chapter 8.11 of the Rules under which a new terminal station generally is considered a separable contestable augmentation, but the works to cut existing lines and re-align towers are not.

Component	Proposal
	assets beyond the existing boundary of the system A new obligation to publish design standards (as proposed by the AEMC) A new obligation to co-operate, to provide timely information to assist AEMO to describe the functional specification for new transmission assets, and to provide information on interface requirements
What obligations would apply to AEMO?	To receive both the connection enquiry and application in the first instance and make initial assessments of system security needs quality of supply issues to other network users, and to determine the boundary between the contestable and non-contestable assets. To provide the technical specifications for connection assets once a full application is received which will be used in the commercial negotiations between the connection applicant and the chosen TNSP AEMO is not involved in any commercial negotiations
What obligations would apply to the AER?	Establish and approve a new national negotiating framework consistent with the proposals put forward by the AEMC to remove potential negotiation bias and ensure national consistency The framework is to incorporate both contestable and non-contestable elements covering all works including interface works

3.1.2 Process steps

Table 2 and Attachment 1 outline indicative steps that would be required under the alternate model. As the existing National Electricity Rules already outline the technical and security requirements associated with registration, commissioning of new assets, physical connections and performance standards, the new arrangements should not require any material amendments to those provisions.

Table 2 – Indicative process steps to achieve the alternate model

Step	Modifies, new or existing?	Proposal
Connection enquiry under the Rules	Modified	All enquiries to be sent to AEMO to begin consideration of and provide advice on system security implications and quality of supply issues to other network users.
	New	AEMO will inform TNSPs (currently there is no obligation for TNSPs to inform AEMO on connection enquiries received)
	New	Additional data can be provided if required at this stage, such as power transfer capability
Notification to the market	New	AEMO to provide preliminary confidential information[7] to the TNSP market only, to alert potential TNSPs of potential augmentations
Connection application under the Rules	Modified	All connection applications to be lodged with AEMO for shared network assets. Once an initial assessment has been made, the application will be sent to the incumbent TNSP that will be required to follow Chapter 5 of the Rules, and the negotiating framework for the interface works to assess

[7] Refer details provided in section 3.1.3 (Information supplied to the market)

Step	Modifies, new or existing?	Proposal
		interface implications. AEMO would then commence the full assessment for system security implications.
Identify the network connection point	New	AEMO will identify the connection point and stipulate the technical requirements at this point necessary to ensure system security
Develop a functional specification for new shared network assets	New	AEMO to develop functional specification (that is, a description of the services that the assets need to deliver) of all the contestable works to be used by the connection applicant to obtain quotes, or procure the work from its preferred TNSP and determine the boundary of contestable and non-contestable assets for the connection
Select TNSP for contestable works	New Modified New	The connection applicant selects and engages an eligible TNSP Negotiations with incumbent TNSP proceed on the basis of AER's negotiating framework within Rules framework for disputes Negotiations with a new TNSP proceed on a commercial basis
Design the new transmission assets to meet functional specification	New	TNSP selected by the connection applicant designs and constructs the shared network assets to meet the functional specification
Design the interface to meet functional specification	Existing	Responsibility of the incumbent TNSP that will design, construct and own the interface works to allow the connection through the existing transmission assets

The new and the existing model as they apply to transmission connections in the NEM are depicted in process charts as Attachments 1 and 2.

3.1.3 Key changes from the current connection model

This section focuses on the key changes that are required to accommodate the alternative connections model. The model would need to recognise and address the process when there is a failure of any registered and licenced TNSP.

Selection of TNSP

The connection applicant selects and engages a preferred TNSP to construct and provide the new assets. The provision of choice to the connection applicant facilitates innovation and competition in the delivery of the project through tendering. The model also incorporates new obligations on incumbent TNSPs to collectively publish national design standards (as proposed by the AEMC) and to co-operate with, and provide timely information to AEMO. AEMO then describes the functional specification for new transmission assets, and can provide information on interface requirements if specified by the incumbent TNSP.

The Transmission Frameworks Review discussed the impact that multiple TNSPs may have on future third party access[8]. As it is intended that new TNSPs will be registered and therefore subject to access obligations under the National Electricity Law and Rules, any future access can be actively facilitated through those obligations, supplemented by independent input on the location and capacity of the augmentation assets, the terms of construction and connection agreements, and sound cost allocation methodologies where future connections occur at a terminal station. The regulatory framework may need to be modified to specifically take into account the possibility that a connection applicant could choose to become a new TNSP in order to ensure there is adequate provision to facilitate potential future third party access.

Functional specification

The development of a functional specification for a new connection asset to the shared network is required before the connection applicant selects a TNSP. This is finalised once a completed connection application is lodged with AEMO.

The functional specification is a description of the services that the assets need to deliver and the network conditions that the assets need to withstand. It is to be used by the connection applicant to obtain quotes for, and/or procure the work from, the chosen TNSP at the completion of the connection application process. Importantly the functional specifications will not define specific assets but the services that the connection applicant must adhere to.

A TNSP will gain understanding of the key requirements for the connection whilst allowing some flexibility in how those requirements are designed. This will allow TNSPs to compete on the basis of their different designs to achieve the same functional requirements.

It is important to note that assets designed and installed by third parties will require careful functional specification, design and efficient contractual risk allocation to have the correct interoperability with existing assets that are owned and operated by the incumbent TNSP. These arrangements can apply equally to ongoing operation and maintenance of the assets.

Information supplied to the market

To provide potential service providers with the ability to make a specific augmentation proposal, as well as to enable the incumbent TNSP to prepare for the connection, AEMO provides preliminary confidential information the TNSP market only at the time of the connection enquiry. The TNSPs may be required to register or pre-qualify with AEMO at this time. The actually timing of this information would be as early as possible.

It is proposed that the data and information outlined below would be provided to the market to reduce the information asymmetry between the incumbent, the connection applicant and other potential service providers.

[8] Section 6.3.2 of the AEMC's Second Interim Report

Once the enquiry has been received by AEMO the information under the model to be provided to the market will include:

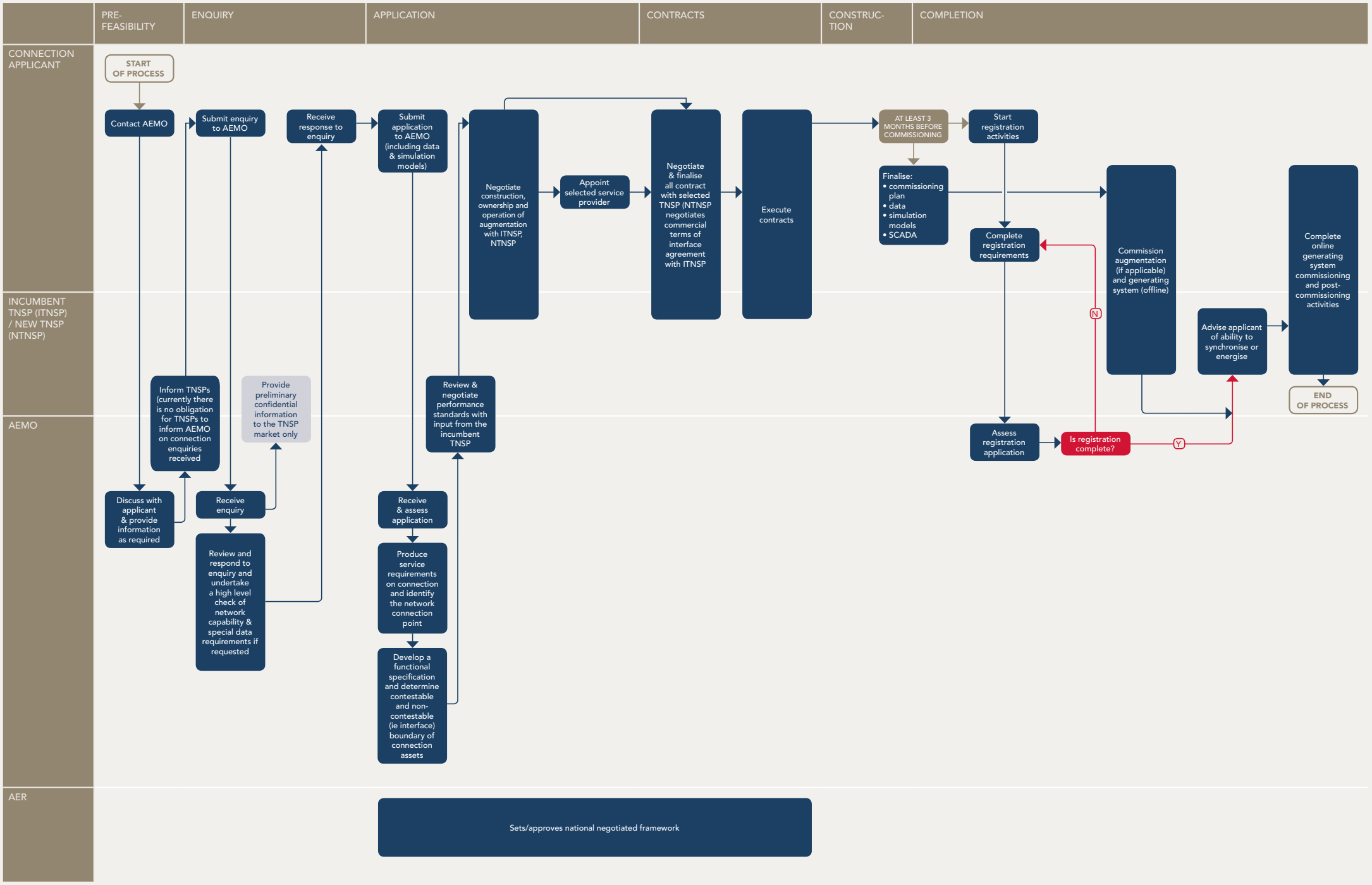
- Date connection enquiry is received
- The connection requirements (e.g. embedded generation, connection at a terminal station, location etc.)

AEMO understands that the proposed early notification to the market of information about prospective connections may raise strategic concerns for connection applicants, for example, where they are still negotiating with local authorities on planning matters or where they are still collecting resource data in the area. Clear provisions would be required to identify information that is commercially confidential and would not be released to TNSPs.

Under the alternate model AEMO would only release information that is reasonably required to enable TNSP-first-movers to prepare for a potential tender.

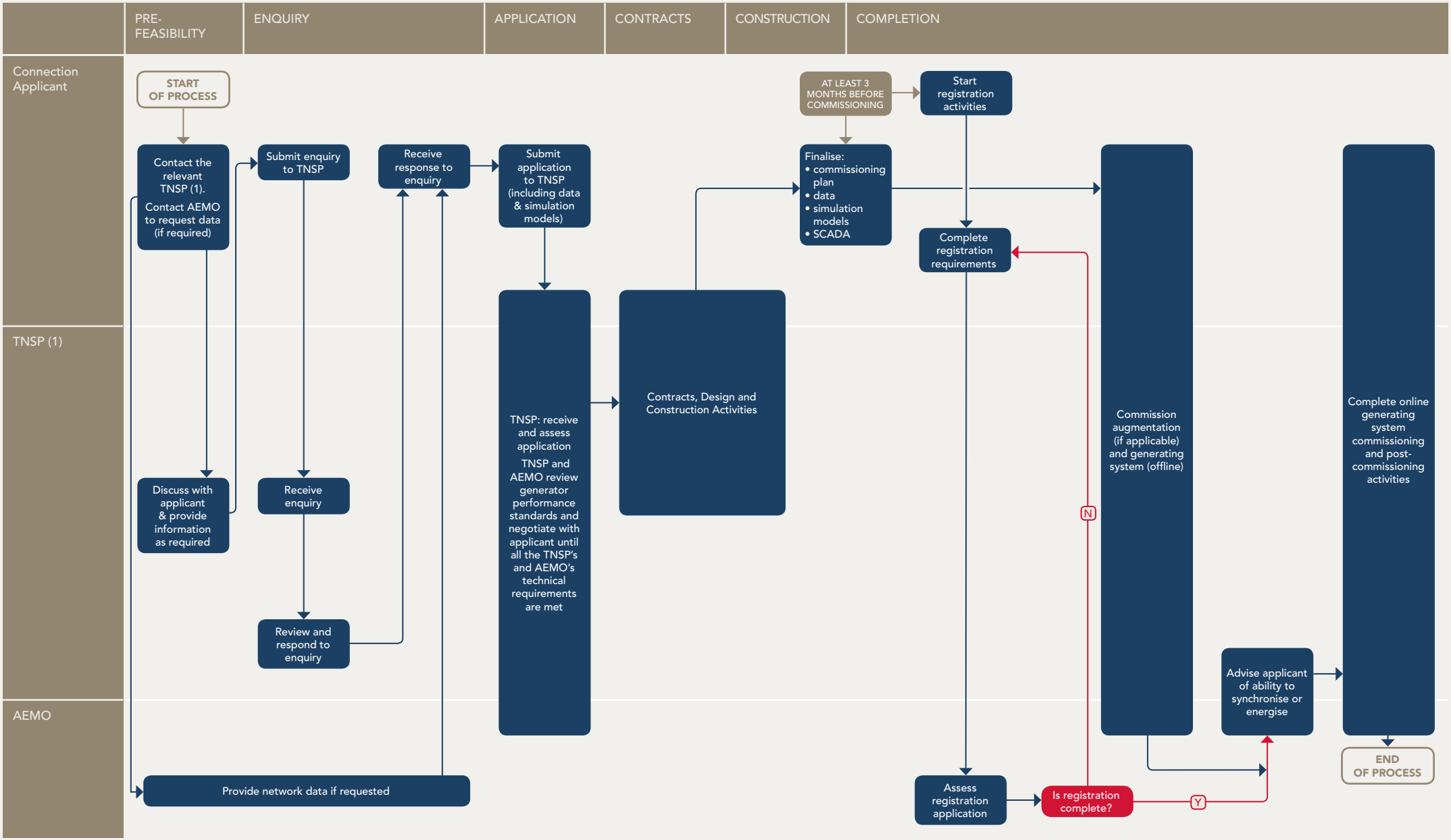
Attachment 1: Proposed National Connection Process Map – New Transmission Connection in the National Electricity Market

PROPOSED NATIONAL CONNECTIONS PROCESS
New Transmission Connection in the National Electricity Market



Attachment 2: Connection Process Map – New Generator Transmission Connection in the National Electricity Market outside Victoria

CONNECTION PROCESS MAP
New Generator Transmission Connection in the National Electricity Market outside Victoria



Notes

(1) TNSP = Transmission Network Service Provider

Legend

Solid line with arrow = progress through process