Electricity Transmission Ring-fencing—a review of current arrangements

Discussion paper

November 2019

AUSTRALIAN ENERGY REGULATOR

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Request for submissions

Interested parties are invited to make written submissions to the Australian Energy Regulator (AER) regarding this paper by the close of business, **31 January 2020**

Submissions should be sent electronically to: Ringfencing@aer.gov.au

Alternatively, submissions can be mailed to:

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- clearly identify the information that is the subject of the confidentiality claim
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Enquiries about this paper, or about lodging submissions, should be directed to the Consumer and Markets branch of the AER on (02) 6243 1248.

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Shortened forms

Shortened Form	Extended Form
ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CCA	Competition and Consumer Act
COGATI Review	Coordination of Generation and Transmission Investment Review
DCA	Dedicated connection assets
DER	distributed energy resources
Distribution Ring-fencing Guideline	Ring-fencing Guideline Electricity Distribution - Version 2 - October 2017
DNSP	distribution network service provider
DTSO	Declared Transmission System Operator
ENA	Energy Networks Australia
ISP	Integrated System Plan
IUSA	identified user shared assets
NEM	National Electricity Market
NER or the rules	National Electricity Rules
NSP	network service provider
opex	operating expenditure
RAB	regulatory asset base
related business (from current Guidelines)	means the activities of generation, distribution an electricity retail supply
RESP	related electricity service provider
RIS	regulatory impact statement
TCAPA	Transmission Connection and Planning Arrangements Rule Change

TNSP	transmission network service provider
TUoS	transmission use of system
current Guidelines	Transmission Network Ring-fencing Guidelines as published by the ACCC in 2002 and updated by the AER in 2005

1 Introduction

Electricity transmission businesses are subject to ring-fencing requirements under our Transmission Ring-fencing Guidelines (the current Guidelines). The current Guidelines were first developed by the Australian Competition and Consumer Commission (ACCC) in 2002, followed by minor updates by the AER in 2005.[1] This discussion paper commences a review of transmission ring-fencing arrangements to reflect the changing nature of the services offered by transmission businesses, and to consider alignment with the 2017 Electricity Distribution Ring-fencing Guideline.

Ring-fencing aims to support the development of competitive markets for contestable services, provide clarity for new investment, and accelerate innovation. To achieve this our transmission ring-fencing regulatory arrangements need to be effective, proportionate and well targeted.

In this paper, we seek stakeholder feedback on whether and how to revise existing transmission ring-fencing requirements that aim to protect competition in markets for contestable electricity services, and customers who pay for the regulated transmission network.

1.1 What is ring-fencing?

Ring-fencing is the identification and separation of business activities, costs, revenues, and decision-making for delivering network services on a monopoly basis, from the delivery of other unregulated services. Consumers benefit from ring-fencing in two ways. First, ring-fencing addresses the risk that customers pay more than they should for regulated services because of cross-subsidised unregulated services offered in competitive markets. Second, electricity consumers can benefit from lower long-term costs and greater customer choice that are created by competitive markets. Ring-fencing promotes competition by preventing NSP's from taking unfair advantage of privileged information due to their central role in the electricity supply chain.

In order to realise these benefits, the rules allow us to impose regulatory obligations on NSPs to ring-fence regulated services from contestable services. This is achieved through:

- specialised accounting and transaction records, and may include legal separation of some parts of a business,
- functional separation of delivery of different parts of the business, for example by requiring some staff not be shared with an affiliate offering services in a competitive market, and
- information firewalls and access controls as well as obligations to share certain information.

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1 In 2002 the ACCC published a Decision, Guidelines, and Ring-fencing Reporting Guidelines, see: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/ring-fencing-guidelines-transmission-2002. The Guidelines underwent a minor update in 2005 when the AER assumed responsibility for regulation of electricity transmission in the NEM and published the 1 August 2005 *Compendium of Electricity Transmission Regulatory Guidelines*, see: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/compendium-of-electricity-transmission-regulatory-guidelines-august-2005.

1.2 Why change the Guidelines

The current Guidelines were developed in 2002 to support broader economic reforms to unbundle competitive electricity generation and retail markets, by preventing TNSPs from carrying on electricity retail, distribution, and generation (a 'related business').

In recent years, new kinds of electricity services and new areas of competition have emerged due to technological change and market reform. The rapid increase in new generation connections (mostly wind and solar PV) to the transmission network has prompted the development of a specific regulatory regime to support provision of transmission network connections on a competitive basis (the AEMC's *Transmission Connection and Planning Arrangements Rule Change*). The reduction in battery costs and improvements in battery technologies has driven connection of new large scale batteries to the transmission network. Some of these large scale batteries are owned by TNSPs and are used to provide both regulated transmission services ('prescribed transmission services' and 'negotiated transmission services') and unregulated services. The market for behind-the-meter energy services for both large and residential customers has developed rapidly since the current Guidelines were implemented, and is increasingly being coordinated on a NEM-wide scale by aggregators and other distributed energy resources (DER) service providers. Advanced monitoring and control technologies are enabling demand response across large and small customers in a way that was not envisaged two decades ago. As a result, demand response is increasingly being used as an alternative to traditional network solutions, or as a replacement for traditional generation capacity. None of these new and emerging contestable electricity services fit neatly into either electricity generation or retail, and are not considered by the current Guidelines.

In 2016, we published the first nationally consistent *Electricity Distribution Ring-fencing Guideline* (the 'Distribution Ring-fencing Guideline'). Since then we have been actively monitoring and reporting on distribution network service provider (DNSP) compliance with the Distribution Ring-fencing Guideline.[2] This process has provided an opportunity for us to revisit our understanding of ring-fencing for electricity networks in light of the expansion of contestable electricity services beyond traditional retail and generation services.

The National Electricity Rules (the NER) require us to consider the need for consistency between the ring-fencing guidelines for transmission and distribution, as far as is practicable.[3] There are a number of features of the current Guidelines that diverge significantly from the intent and form of the Distribution Ring-fencing Guideline. In comparison to the Distribution Ring-fencing Guideline, the current Guidelines:

- have weaker protections against cross-subsidy of unregulated activities by regulated revenue
- have a more narrow definition of 'discrimination' that does not encompass non-retail and non-generation contestable electricity services
- potentially provides for greater sharing of functional operation (staff, offices, branding)

2 AER, *Ring-fencing Guideline - Electricity Distribution - Version 2*, October 2017.

3 NER, cl.6A.21.2(c)(2).

- give TNSPs some scope to engage in retail, generation and distribution activities under a certain threshold.

The current Guidelines impose minimal compliance reporting obligations on TNSPs. As a result we have less oversight over TNSP compliance with the current Guidelines compared with the distribution ring-fencing guidelines.

Some network businesses hold licences as both TNSP and DNSPs, and so are subject to two significantly different ring-fencing frameworks, terminology and compliance requirements. These differences can cause administrative inefficiency for these businesses. For example, AusNet Services and TasNetworks hold waivers from the current Transmission Guidelines that allow them to provide distribution services from the same legal entity that provide transmission services. Under the Distribution Ring-fencing Guideline, a business can provide transmission and distribution services from the same legal entity.

In light of the issues noted above, we consider the current Guidelines are no longer fit-for-purpose. While the precise scope and content of a revised Guideline is the subject of this review process, we consider a review of transmission ring-fencing arrangements and development of an updated guideline is timely.

1.3 Our approach to the review

Our electricity transmission ring-fencing guideline must be in accordance with clause 6A.21.2 of the National Electricity Rules. A summary of these NER requirements for transmission ring-fencing is at Appendix A.

We propose to use the ring-fencing objectives and aims for the Distribution Ring-fencing Guideline as our starting point for an updated transmission ring-fencing guideline. That said, we also recognise the differences in the regulatory regime and commercial environment for TNSPs and DNSPs. Drawing out these differences, and what they might mean for an updated transmission ring-fencing guideline, is a key focus of this discussion paper.

We consider the objectives and aims of the Distribution Ring-fencing Guideline are broader than the aims in the current transmission Guidelines, which are more narrowly focused on "separat[ing], as far as possible, the monopoly powers of TNSPs from the contestable activities of generation and retail supply."[4] The objectives of our Distribution Ring-fencing Guideline are to:

1. promote the National Electricity Objective by providing for the accounting and functional separation of regulated transmission (or distribution) services provided by a network business from the provision of other services provided by them or their affiliated entities, and
2. promote competition in the provision of contestable electricity services.

The second objective is concerned with the potential for regulated businesses to harm the development of markets, and in particular new and emerging markets, for contestable electricity services.

4 ACCC, *Decision: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines*, 15 August 2002, pp. 1-2.

The Distribution Ring-fencing Guideline puts obligations on regulated distribution network service providers (DNSPs) to prevent two distinct types of harm:

- Cross-subsidy by a DNSP by attributing costs associated with its unregulated services to its regulated activities.
- Discrimination by a DNSP in favour of part of its business or one its affiliates operating in contestable markets.

With respect to transmission services, we intend to explore these same two potential harms.

Subject to stakeholder consultation, we consider an updated guideline could:

- broaden the scope of services captured by transmission ring-fencing
- improve alignment with the distribution ring-fencing framework where appropriate
- introduce annual auditing and compliance reporting obligations.

We will also consider the need for an updated ring-fencing framework to retain flexibility as to how ring-fencing objectives are met, by allowing exemptions in the guideline and waivers for situations where the cost of compliance outweighs benefits to consumers. A waiver mechanism reflects the fact that ring-fencing is not a costless activity and that in certain circumstances these costs may be greater than the benefits ring-fencing may provide.

In developing a revised transmission ring-fencing guideline, we will draw on the COAG *Best Practice Regulation Guide*,[5] and develop obligations that are:

- efficient and effective in achieving the desired outcomes and objectives
- adaptive and flexible over time, and in accommodating different TNSP circumstances, new business models and technologies, and product innovation
- administratively workable and enforceable, from AER, TNSP and stakeholder perspectives
- consistent with and/or complement existing regulatory instruments
- transparent and accessible by all stakeholders.

Question 1: Are the objectives and aims in the Electricity Distribution Ring-fencing Guideline relevant to transmission ring-fencing?

5 COAG, *Best practice regulation: A guide for ministerial councils and national standards setting bodies,* October 2007.

1.4 Timeline

Table 1 Ring-fencing guideline timeline (indicative[6])

Step	Date
AER discussion paper published	15 November 2019
Submissions due	31 January 2020
AER workshop with stakeholders	February 2020
AER release Draft Guideline	May 2020
Submissions on Draft Guideline due	June 2020
AER workshop with stakeholders	July 2020
Final Guideline	September 2020
Compliance with new guideline commences	1 July 2021

Updates

Stakeholders that wish to be advised of upcoming workshops or other ring-fencing related issues should subscribe to the AER website for notifications at www.aer.gov.au/newsletter/subscribe and indicate 'ring-fencing' as a topic of interest to you.

1.5 Structure of this paper

In the following sections, this discussion paper:

- explains nature of electricity services provided by transmission businesses and the potential harms that might arise if TNSPs or their affiliates provide services into competitive markets.
- outlines the controls in the current Guidelines to prevent cross-subsidy and discrimination by a TNSP, and examines whether these controls are adequate
- raises a range of other issues for stakeholders to consider, including interactions with other regulatory reform processes, compliance and enforcement, waivers, and transitional arrangements to a new ring-fencing guideline.

1.6 Summary of questions

In this discussion paper, we seek stakeholder views on a number of aspects of transmission ring-fencing. To encourage stakeholder input, we have included questions through these paper, which are summarised in the table below.

6 These dates may be adjusted as the review progresses. We may include additional steps such as workshops or forums, if these are requested by stakeholders. The final guideline must be published with 80 business days of the draft guideline being published (NER 6A.20.(e). The AER may increase this period in certain circumstances.

Table 2. Summary of consultation questions

Question
Question 1: Are the objectives and aims in the Electricity Distribution Ring-fencing Guideline relevant to transmission ring-fencing?
Question 2: What issues should we consider in our review with respect to non-regulated electricity services provided by TNSPs?
Question 3: With respect to non-electricity services provided by TNSPs, what issues should we consider in our review of transmission ring-fencing?
Question 4: To prevent cross-subsidies, can we rely on the TNSPs' application of cost allocation methods and audits of annual financial reports to the AER?
Question 5: Should we align measures to prevent cross subsidies in transmission with the Electricity Distribution Ring-fencing Guideline?
Question 6: The NER allows the AER to ring-fence prescribed services from any other service provided by the TNSP. For ring-fencing purposes, should negotiated services be treated as if they were prescribed services?
Question 7: In what ways could a TNSP discriminate in favour of part of the business or an affiliate providing non-regulated transmission services? To what extent does TCAPA address these harms?
Question 8. Should staff, office or branding restrictions be applied where a TNSP affiliated entity provides generation and retail services?
Question 9: The current Guideline permits a TNSPs to carry on a 'related business' if it earns revenue of less than or equal to 5 per cent of the TNSP's total annual revenue. Should this be retained in anew transmission Guideline?
Question 10: What ring-fencing controls (if any) should apply to TNSPs participation in new and emerging contestable electricity services? Can you provide some examples of TNSPs delivering these kinds of services, and any associated harms (or benefits)?
Question 11: Are there particular aspects of the COGATI reforms and other reforms affecting transmission we should take into consideration in developing a new transmission ring-fencing guideline?
Question 12: Is regular compliance reporting and independent assessment of compliance required?
Question 13. Should we adopt a similar approach to waivers for transmission?
Question 14: What factors should the AER consider in determining a reasonable transition period?

2 Services provided by TNSPs

TNSPs deliver electricity from electricity generators to distribution networks and a limited number of large customers directly connected to a transmission network. We regulate transmission services provided on a monopoly or near-monopoly basis by TNSPs under the NEL and NER as 'prescribed transmission services' and 'negotiated transmission services'.[7]

In recent years, some services that were once largely provided by TNSPs have been opened up to third party providers (such as contestable connection services). At the same time, regulated transmission businesses and their affiliated entities are providing services not previously associated with regulated transmission services, such as battery leasing and infrastructure construction and maintenance. As a result, there is increasing overlap between the services offered by TNSPs and those offered by other providers. This trend, driven by technological change, is creating new opportunities for TNSPs as well as other service providers.

In this section we discuss the contestable services that a TNSP and its affiliates may offer and potential harms that could arise as a result.

2.1 Non-regulated transmission services

When the current Guidelines were published, new connections to the transmission network were relatively infrequent. With the growth of large-scale wind and solar PV generation in the NEM in recent years, the pace of new connections to the transmission network has significantly accelerated. In the past, there was some ambiguity in the Rules regarding the provision of various connection assets, which allowed scope for TNSPs to exercise their own discretion as to what components of a connection the TNSP provided and how they were regulated.[8]

A TNSP's position as a provider of regulated transmission services could give them a considerable advantage against other providers of connection services. For example, TNSPs have privileged access to information about their own shared network that large customers and generators connect to, and they set the technical requirements that new connection assets must meet (which differ between customers). Absent regulations to govern TNSP conduct, this information could create a commercial incentive and opportunity for a TNSP to make decisions that favour its own business interests.

As demand for connection services has increased, the market for contestable connection service providers has also expanded, and the regulatory framework for connections has become more sophisticated. In 2017, the AEMC's Transmission Connection and Planning Arrangements (TCAPA) Rule Change introduced a well-defined expanded contestability regime for new connections to the transmission network. TCAPA distinguished three elements of a connection:

7 See Appendix B for a description of different kinds of transmission services defined in the NER.

8 AEMC, *Rule Determination: National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017*, 23 May 2017, p. 20.

- The 'shared network' that the connection joins to. This is operated by the TNSP as part of delivery of prescribed transmission services.
- 'Identified user shared assets' (IUSA), which broadly identifies the assets that form the point of connection with the network, and which, once commissioned, become part of the shared network (e.g. a substation). The design, construction and ownership of certain components of IUSA can be provided on a contestable basis provided that the assets meet certain criteria. Some components of the IUSA (and the functional specification of those assets) remain non-contestable and are to be provided by the TNSP as negotiated transmission services.[9]
- 'Dedicated connection assets' are parts of the connection that can be isolated from the shared connection once commissioned (for example a power line connecting a substation to a generator). These assets can be built and owned on a contestable basis.[10]

The TCAPA Rule Change allows the 'primary TNSP' (i.e. the TNSP that owns and operates the local transmission network) to compete to provide contestable connection services. When it does so, the TNSP is providing a non-regulated transmission service in competition with other market players.[11] In general, connections appear to constitute the majority of negotiated and non-regulated transmission services currently performed by TNSPs.

2.2 Electricity generation and retail

Under the current Guidelines a TNSP cannot carry on a 'related business' (electricity retail, distribution, or generation). The current Guidelines also establish a number of requirements in the event that an 'associate'[12] (or affiliated entity) carries on a related business, to ensure that the affiliate does not gain a discriminatory advantage by way of its relationship with the TNSP. To-date, few affiliates of the TNSPs have undertaken electricity retail or generation businesses, with some exceptions:

- In 2004 SPI Powernet (now AusNet Services) acquired TXU, including some generation and retail operations. The acquisition was subject to an undertaking under Section 87B of the Trade Practices Act, and a waiver of the Transmission Ring-fencing Guideline.[13] The generation and retail operations were divested to CLP Holdings later that same year, ending cross-ownership of SPI Powernet's transmission assets and TXU's generation and retail operations.
- In 2019 Spark Infrastructure, which part-owns Transgrid, purchased the Bomen Solar Farm. Once built, the solar farm will connect to Transgrid's network.[14]

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9 NER, cl.5.2A.4(a)

10 AEMC, *Rule Determination: National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017*, 23 May 2017, p. iii.

11 AEMC, *Rule Determination: National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017*, 23 May 2017, p. 15.

12 An 'associate' is defined in S. 11 of the Corporations Act.

13 ACCC, *Undertaking to the Australian Competition and Consumer Commission given under section 87B by SP Energy Pty Ltd, SPI Australia Holdings Pty Ltd & SPI Powernet Pty Ltd*, 19 July 2004; ACCC, *Decision: SPI Powernet Pty Ltd application for waiver from Transmission Ring-fencing Guidelines*, 2 March 2005.

14 Spark Infrastructure, *ASX release - Spark Infrastructure acquires Bomen Solar Farm in NSW*, 17 April 2019.

Transmission networks substantively affect a generator's activities in the wholesale market. At the time of connection, the transmission business sets connection requirements via generator connection and access agreements. Once operational, constraints on the transmission network can influence a generator's access to the regional reference node, influencing whether or not the generator can be physically dispatched into the wholesale market. Without appropriate regulatory controls in place, a TNSP could provide significant discriminatory advantage to affiliated generators trading on the wholesale market. There would also be scope for a TNSPs to cross-subsidise non-regulated activities.

Box 1. Full structural separation versus ring-fencing

Ring-fencing is distinct from full structural separation. Full structural separation (also known as cross-ownership restriction) means full ownership separation, and would require a business to divest any existing interests in certain business activities and ensure that no affiliate commences providing those business activities. The NER does not provide us with the authority to impose full structural separation on a TNSP.

Ring-fencing is an alternative to full structural separation. Ring-fencing places obligations on an NSP to ensure that markets for contestable services are not adversely impacted, particularly for markets where the decisions of a TNSP or the information held by a TNSP could provide a discriminatory advantage to an affiliate. In some cases ring-fencing can avoid the potential costs that full structural separation may entail. For example, the scale and expertise that a TNSP may provide benefits in the provision of certain services without negatively impacting competitive outcomes for customers.

The issue of structural separation of transmission and generation has been examined a number of times in recent years. In 2011 the Council of Australian Governments (COAG) Energy Council Standing Committee of Officials (SCO) requested a consultation regulatory impact statement (RIS) to examine competition issues associated with cross-ownership of electricity transmission and generation assets.[15] Some jurisdictions have included restrictions on cross-ownership of generation and transmission in jurisdictional legislation. For example, the *Victorian Electricity Industry Act 2000* included cross-ownership restrictions until they were repealed in 2012.[16]

Full structural separation provides a greater separation of regulated service providers from contestable markets compared with ring-fencing. However, excluding regulated businesses from these markets also imposes costs given the ability of NSPs to offer services to consumers in these markets. In a sense, ring-fencing represents a middle ground whereby regulated businesses have access, albeit restricted, to participation in contestable markets.

15 Ministerial Council on Energy Standing Committee of Officials, *Consultation regulation impact statement: Separation of generation and transmission*, 11 August 2011.

16 Victorian Government, *Energy Legislation Amendment (Flexible Pricing and Other Matters) Bill 2012 - Explanatory Memorandum*, Part 2 division 1 clause 4.

2.3 New and emerging energy services

Technological change and market reform has spurred the emergence of a diverse range of contestable electricity services that do not clearly fit into electricity generation, transmission, or retail services. This section provides some examples of TNSP participation in some of these services.

In recent years, network businesses have started to invest in battery assets that can provide regulated and unregulated services. As the cost of electricity storage technologies has declined, small scale and grid scale batteries are being added to the network. Batteries can provide a range of different services from a single battery asset, often providing multiple services at same time or within milliseconds. For example, batteries can act as generation and load in the wholesale market, as well as provide network services, frequency services, behind-the-meter self-generation, and microgrid services.

Under the current regulatory framework, TNSPs can engage with batteries in a number of ways. TNSPs can own batteries or they can procure inputs into transmission services from third parties that own and operate batteries. In some circumstances, TNSPs can also own batteries and lease usage of the battery to third parties that provide contestable electricity services. The box below provides some examples of this. The ring-fencing implications of these arrangements are explored further in a case study in section 3.2.1 of this paper.

Box 2. Examples of TNSP-owned utility scale batteries[17]

17 ElectraNet, *ElectraNet's Battery Storage Project*, https://www.electranet.com.au/electranets-battery-storage-project/; ARENA, *Victoria's first of two large-scale, grid connected batteries reaches completion in Ballarat*, 23 October, 2018, https://arena.gov.au/news/victorias-first-of-two-large-scale-grid-connected-batteries-reaches-completion-in-ballarat/; AusNet Services, AusNet Services to host Victoria's latest big battery project in Ballarat, March 2018, https://www.ausnetservices.com.au/Misc-Pages/Links/About-Us/News-Room/News-Room-2018/AusNet-Services-to-Host-Victorias-Latest-Big-Battery-Project-in-Ballarat.

ElectraNet's ESCRI battery

ElectraNet owns a large scale battery located at the Dalrymple substation in South Australia. ElectraNet has reserved part of the capacity of this battery to provide regulated network services, and part of the battery capacity is leased to AGL. AGL uses the battery together with the 90 MW Wattle Point Wind Farm to sell into the wholesale market (involving both market generation and market load services) and sell generation into frequency control and ancillary service (FCAS) markets. ElectraNet uses the battery to provide fast frequency response and reduce Heywood interconnector constraints, and improve supply to local areas on the Yorke Peninsula by supplying power for approximately 2 hours following the loss of transmission supply.

AusNet's Ballarat substation battery

AusNet Services owns a 30MW/30MWh battery at the Ballarat transmission terminal substation in Victoria. AusNet Services leases 100 per cent of the battery's capacity to Energy Australia. Energy Australia uses the battery to provide generation and load services in the wholesale market.

TNSPs could also use batteries to provide demand response services to customers. For example, one TNSP recently installed a battery on a large customer's site for demand management purposes. The TNSP monitors day-to-day operations of the battery, which is used to provide demand management services that reduce network congestion, as well as maximisation of on-site PV generation and bill minimisation for the customer.[18]

A number of TNSPs build industrial scale behind the meter infrastructure for power generation plants and commercial and industrial customers. Some TNSPs have business units that compete against other large engineering companies to build private electricity networks. Examples of this can include private reticulation, transformers and substations, and other electrical infrastructure for mining and oil and gas sites, power generation plants, and other large industrial facilities.[19]

Some TNSPs provide electricity-related consultancy services. Examples of these electricity consultancy services include assessments of transmission assets to determine their capacity for prospective generators, options analysis to help generators determine the best way to connect to the transmission network, or assessments of line height requirements on private networks.

Some TNSPs provide specialised testing and laboratory services on an unregulated basis to other participants in the electricity industry. These laboratories typically perform tests on

18 Transgrid, *Battery storage: The next step towards a clean energy future*, https://www.transgrid.com.au/news-views/blog/Lists/Posts/Post.aspx?ID=123

19 For example, ElectraNet provides connection and balance of plant services across mining (https://www.electranet.com.au/what-we-do/solutions/mining/) and oil and gas (https://www.electranet.com.au/what-we-do/solutions/oil-and-gas/).

transformers, reactors and other high voltage plant. Customers for laboratory testing can include other TNSPs and industrial users or suppliers of high voltage equipment.[20]

Absent any regulatory controls over TNSP behaviour, it is possible that a TNSP or an affiliate of the TNSP could gain a discriminatory advantage in providing these diverse kinds of new and emerging electricity services. In some cases (such as providing battery leasing or demand management services) harms may relate to preferential wholesale market access that a TNSP could provide, as discussed in the section above on generation and retail services. Other harms may relate to the privileged information that a TNSP employee might have about long-term or short-term network constraints, planned or unplanned outages, or other information about the transmission network that impacts contestable electricity services. There would also be scope for a TNSP to cross-subsidise non-regulated activities. However, the involvement of network businesses in new and emerging energy services can also provide efficiencies that benefit customers. For example, by providing battery leasing services to AGL in the example above, ElectraNet can stack multiple sources of value from both regulated and unregulated services into the single ESCRI battery.

Question 2: What issues should we consider in our review with respect to non-regulated electricity services provided by TNSPs?

2.4 Non-electricity services

TNSPs also provide a range of non-electricity services, the most prominent of which are telecommunications services. TNSPs have certain advantages in providing certain types of telecommunications services, because they have a network of poles and wires that can also be used for telecommunications cables. For example, Powerlink has a fibre optic network that connects areas below Cairns and above the NSW border. TasNetworks also owns a telecommunications, data centre and IT business, although this is now legally separated following the introduction of the Distribution Ring-fencing Guideline. Where a TNSP uses transmission assets to provide other services, such as telecommunications, this is subject to the Shared Asset Guideline. The Shared Asset Guideline allows the AER to reduce the network provider's regulated revenue by 10 per cent of the value of unregulated revenue earned from shared assets.[21] This means that customers of the regulated network shared in the benefits of a network provider's unregulated revenues earned from sharing of network assets.

Generally speaking, these markets for non-electricity services do not rely on the transmission network to function. While we consider there is limited scope for a TNSP to provide a discriminatory advantage in competing to provide non-electricity services, there remains a potential for cross-subsidisation to occur where TNSPs provide non-electricity services, like telecommunication services.

TNSPs and their affiliates currently compete in several kinds of markets for contestable services. Without appropriate regulatory controls in place, there are harms to competition

20 For example, Powerlink, *Laboratory services*, https://www.powerlink.com.au/laboratory-services.

21 AER, Shared Asset Guideline, November 2013, cl. 3.1.

and to customers of the regulated network that could arise from the participation of monopoly network businesses in these markets:

- In markets for contestable electricity services that relate to the operation of the shared transmission network, the TNSPs' access to commercially sensitive information and their role in operating the shared network could provide an advantage to a part of the business competing in markets for these services. In particular, TNSPs provide physical access to the wholesale market for generators and load, and this opens up the potential for discrimination by a TNSP to affect wholesale market outcomes.
- Across all non-regulated services (including non-electricity services), there is scope for the TNSP to use regulated revenues to cross-subsidise provision of non-regulated activities. This harms customers of the regulated network, who must pay higher costs for the shared network. It also harms competition by artificially lowering the price that the TNSP or its affiliate can offer contestable services into the market.

Question 3: With respect to non-electricity services provided by TNSPs, what issues should we consider in our review of transmission ring-fencing?

3 How ring-fencing prevents harms

In the previous section we discussed the types of contestable services that TNSPs and their affiliates offer and the potential harms that could arise. We now consider how these harms could be controlled through ring-fencing. First we discuss how these harms are controlled under the current Guidelines, and we note some weaknesses. We then compare the current arrangements for transmission ring-fencing to the framework that applies to distribution networks. We observe there are important differences between the regulatory and operating environments for DNSPs and TNSPs, and seek stakeholder views on how these differences might influence our approach to developing updated transmission ring-fencing arrangements.

3.1 Cross subsidy

The current Guidelines contain a number of obligations designed to prevent a TNSP from using regulated revenues to cross-subsidise non-regulated transmission services and other non-transmission services. The current Guidelines require that:

- A TNSP must establish and main a separate set of accounts for the provision of prescribed transmission services, and a separate amalgamated set of accounts for its entire business.[22]
- A TNSP must allocate any costs that are shared between an activity covered by a set of accounts for prescribed transmission services and any other activity.[23] Cost allocation must be reported according to the Information Requirement Guidelines.[24]
- If a TNSP that provides prescribed services is part of an 'economic entity', the TNSP must ensure that a separate amalgamated set of accounts for prescribed services is maintained, and that accounts are prepared in accordance with the Information Requirement Guidelines.[25]
- A TNSP must report compliance against the three requirements above according to the Information Requirements Guidelines.[26] These were updated by the AER and became the Information Guideline in 2007 and 2015.[27]

These obligations are summarised in the figure below.

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22 ACCC, *Guidelines: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines*, 15 August 2002, cl. 7.3(a).

23 ACCC, *Guidelines: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines*, 15 August 2002, cl. 7.4; ACCC, *Guidelines: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines - Reporting guidelines*, 23 October 2002, cl. 8(c).

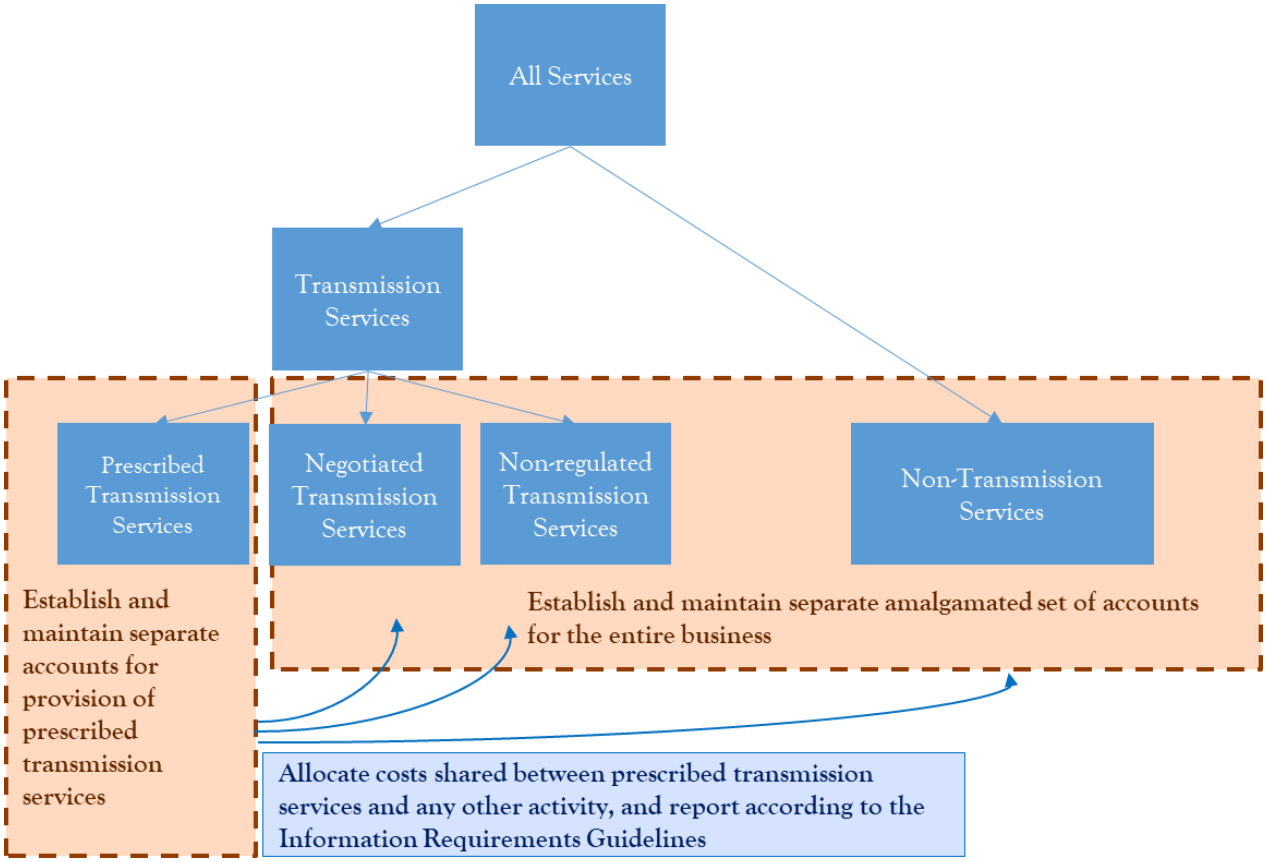
24 In 2015, the AER updated the Information Requirement Guidelines, see: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/information-guideline-2015.

25 ACCC, *Guidelines: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines*, 15 August 2002, cl. 7.5; ACCC, *Guidelines: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines - Reporting guidelines*, 23 October 2002, cl. 8(c).

26 ACCC, *Guideline: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines - Reporting Guidelines*, 23 October 2002, cll. 8(c) and 9(c).

27 See: https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/information-guideline-2015.

Figure 1. Measures to address cross-subsidy in the current Guidelines



There are a number of other regulations currently in place that relate to allocation of costs. TNSPs are subject to an AER-approved Cost Allocation Method (CAM) that must accord with the cost allocation principles in the NER[28] and the AER's Cost Allocation Guideline.[29] The Cost Allocation Guideline and TNSP CAMs impose a consistent approach to allocation of costs between different transmission services, and the prices of regulated services are determined by the costs allocated to providing these services. Therefore the CAM is crucial to avoiding cross-subsidies between different transmission services.

The Electricity Transmission Network Services Providers Information Guideline sets out the form and content of data that TNSPs must provide to the AER on an annual basis. Under the Information Guideline, TNSPs must provide a true and fair statement of the financial performance of the TNSP, among other information.[30] The Information Guideline focuses on financial reporting necessary for the AER to fulfil its monitoring, reporting and assessment roles associated with making TNSP revenue determinations.

3.1.1 Potential gaps in the current approach

28 NER, cl.6A.19.2.
29 AER, *Electricity transmission network service providers cost allocation guidelines*, September 2007.
30 NER, cl. 6A.17.1(b)(1).

We consider the current Guidelines do not adequately address risk of cross-subsidy between prescribed transmission services and any other services that may be provided by the TNSP or an affiliate. In particular, the current Guidelines do not provide sufficient transparency over how costs should be allocated between transmission and non-transmission services, which makes correct cost allocation difficult to monitor and enforce.

Cost allocation and attribution

We consider that the current Guidelines do not provide strong mechanisms for a TNSP to correctly allocate costs between transmission and non-transmission services in order to prevent cross subsidy. The current Guidelines rely on financial reporting based on the Information Guidelines. The Information Guidelines require cost allocation consistent with CAMS we have approved.[31] However, CAMs are only required to address allocation of costs between types of transmission services, and Regulatory Information Notices provided under the Information Guidelines do not collect detailed financial data on non-transmission services.[32] CAMs do not necessarily address allocation of costs (and therefore potential cross-subsidy risk) between transmission and non-transmission services, where costs are shared between different parts of the business. Individual network businesses have the option to update their CAMs to address cost allocation between transmission and non-transmission services. However, correct cost allocation between transmission and non-transmission services would not be enforceable by the AER under the cost allocation rules in the NER, except where this is required by the Transmission Ring-fencing Guidelines.[33] We therefore propose to consider making this a requirement in an updated transmission ring-fencing guideline.

Box 3. Cost allocation in the Electricity Distribution Ring-fencing Guideline[34]

Some of the requirements in the Electricity Distribution Ring-fencing Guideline are similar to the current transmission guideline. For example, DNSPs are also required to establish and maintain appropriate internal accounts to ensure that it can demonstrate the extent and nature of transactions between a DNSPs and its affiliates.

The Distribution Ring-fencing Guideline also takes existing regulatory mechanisms, in particular CAMs, and extends them. The Distribution Ring-fencing Guideline requires a DNSP to allocate costs between distribution and non-distribution services using the same method and principles in the approved CAM. For example, a DNSP might have a parent company allocating the cost of human resources staff between the DNSP and an affiliate. The Distribution Ring-fencing Guideline requires that those costs should be allocated according to the same principles and methodology in the AER-approved CAM.

In addition, the Distribution Ring-fencing Guideline requires DNSPs to report annual to the AER on the nature and scope of transactions between the DNPS and affiliates.

31 AER, *Electricity transmission network service providers information guidelines - Version 2*, April 2015, cl. 2.3.
32 NER, cl. 6A.19.2(1).
33 NER, cl. 6A.19.2(6)
34 AER, *Ring-fencing Guideline Electricity Distribution*, Version 2, October 2017, cl. 3.2.

Question 4: To prevent harm from cross-subsidies, can we rely on the TNSPs' application of cost allocation methods and audits of annual financial reports to the AER?

Legal separation

Legal separation reinforces accounting separation and appropriate cost allocation in a ring-fencing framework, providing additional protection against cross subsidy. As cost allocation and annual reporting under the NER only relates to allocation of costs between transmission services, accounting requirements alone may be not be sufficient to prevent cross subsidy of non-transmission services. Legal separation of different businesses imposes greater accounting transparency. Being a legal entity carries obligations under the Corporations Act, including requirements to maintain financial reports that comply with accounting standards.[35] Legal separation also allows for transparency over transactions between different entities.

Under the current Guidelines, TNSPs are only required to legally separate a 'related business' that undertakes electricity generation, retail or distribution activities, except where the related the related business attracts revenue of less than or equal to 5 per cent of a TNSP's total annual revenue.[36] Aside from this restriction, the legal entity that houses a TNSP providing transmission services can provide any other services, including non-transmission services.

Box 4. Legal separation in the Electricity Distribution Ring-fencing Guideline[37]

> The Electricity Distribution Ring-fencing Guideline requires that a DNSP separate all non-distribution and non-transmission services into a different legal entity to the DNSP that provides distribution services, subject to a number of exceptions in clause 3.1 of the Guideline.

Question 5: Should we align measures to prevent cross subsidies in transmission with the Electricity Distribution Ring-fencing Guideline?

3.2 Discrimination

Regulated business should not discriminate in favour of affiliates operating in an unregulated market because this disadvantages competitors of the affiliate and more generally undermines the efficient operation of the market. This is a core feature of most ring-fencing frameworks. Both the current transmission Guidelines and the Distribution Ring-fencing Guideline contain non-discrimination clauses.

The scope of the anti-discrimination obligation in the Distribution Ring-fencing Guideline is broader than the current transmission Guidelines. Specifically, the current transmission

35 Corporations Act, S. 296(1).

36 ACCC, *Guidelines: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines*, 15 August 2002, cll. 4 and 7.1.

37 AER, *Ring-fencing Guideline Electricity Distribution*, Version 2, October 2017, cl. 3.1.

Guidelines only consider discrimination in relation to the provision of prescribed transmission services.[38] By contrast, the Distribution Guideline obliges a DNSP not to discriminate in between any related electricity service provider and its competitor (or potential competitor) in connection with direct control distribution services *and/or* contestable electricity services.[39] The Distribution Ring-fencing Guideline also contains a number of additional requirements on a DNSP that together put greater definition around the meaning of "discrimination".[40]

Both the current transmission Guidelines and the Distribution Ring-fencing Guideline have a range of obligations to functionally separate business operations associated with providing regulated services from provision of certain kinds of unregulated services. Functional separation strengthens broad non-discrimination obligations, by significantly reducing the opportunities for discrimination to take place on a day-to-day basis. The table below compared functional separation obligations in the current transmission Guidelines and the Distribution Ring-fencing Guidelines.

Table 3. Summary of transmission and distribution functional separation obligations

Harm targeted	Transmission Ring-fencing Guideline	Electricity Distribution Ring-fencing Guideline
Sharing of commercially sensitive information (inadvertent or otherwise) between regulated network staff and staff of the affiliate due to **physical co-location** or **office sharing.**[41]	No obligations in current Guideline.	DNSP must use offices that are separate from a related electricity service provider, subject to certain exemptions.[42] Offices that are shared due to an exemption in the guideline must be declared in a public register.[43]
Sharing of commercially sensitive information (inadvertent or otherwise) between regulated network staff and staff of the affiliate due to **sharing of staff** between the regulated network business and an affiliate[44]	TNSP must ensure that: • marketing staff do not work for an 'associate' that takes part in a 'related business'	DNSP must ensure that its staff involved in the provision or marketing of direct control services are not also involved in the provision or marketing of contestable electricity services by a related service provider, excepting where those staff,

38 Specifically, cl. 7.2 states that a TNSP (a) "must act in the best interests of the TNSP in respect of all decisions relating to the provision of [prescribed transmission services] and the terms and conditions on which those services are provided", and (b) "must not make decisions or act in a manner that discriminates in favour of an associated in relation to the terms and conditions on which those services are provided."

39 AER, *Ring-fencing Guideline Electricity Distribution*, Version 2, October 2017, cl. 4.1(b).

40 For example, cl. 4.1(c) of the Electricity Distribution Ring-fencing Guideline requires that a DNSP must treat the related electricity service provider as though it were not related to the DNSP, deal with the related electricity service provider and a competitor on the same terms and conditions, and other requirements.

41 AER, *Electricity Distribution Ring-fencing Guideline - Explanatory Statement*, November 2016, p. 37.

42 AER, *Ring-fencing Guideline Electricity Distribution*, Version 2, October 2017, cl. 4.2.1.

43 AER, *Ring-fencing Guideline Electricity Distribution*, Version 2, October 2017, cl. 4.2.4.

44 AER, *Electricity Distribution Ring-fencing Guideline - Explanatory Statement*, November 2016, p. 38.

	• none of its staff are marketing staff of an associate that takes part in a related business.[45]	subject to certain exemptions.[46] Staff that are shared due to an exemption in the guideline must be declared in a public register.[47]
Influencing of consumer choice in markets for contestable services due to **shared branding** between the regulated network and the unregulated affiliate[48]	No obligations in current Guideline.	DNSP must use branding for regulated distribution services that are independent and separate from branding used by a related electricity service provider, and must not cross-promote services offered by the related electricity service provider, subject to certain conditions.[49]
Sharing of commercially sensitive information (directly or via a third party) between the regulated network and an affiliate that provides a discriminatory advantage on markets for contestable services.[50]	TNSP must ensure that information it provides in relation to prescribed services to an affiliate taking part in a related business is available to any other party.[51]	DNSP must keep private electricity information confidential, and only disclose under certain conditions.[52] If a DNSP does disclose confidential information to the related electricity services provider, they must make that information available to the competitors of the related electricity service provider. This must be done through a public information sharing register, governed by an information sharing protocol. [53]

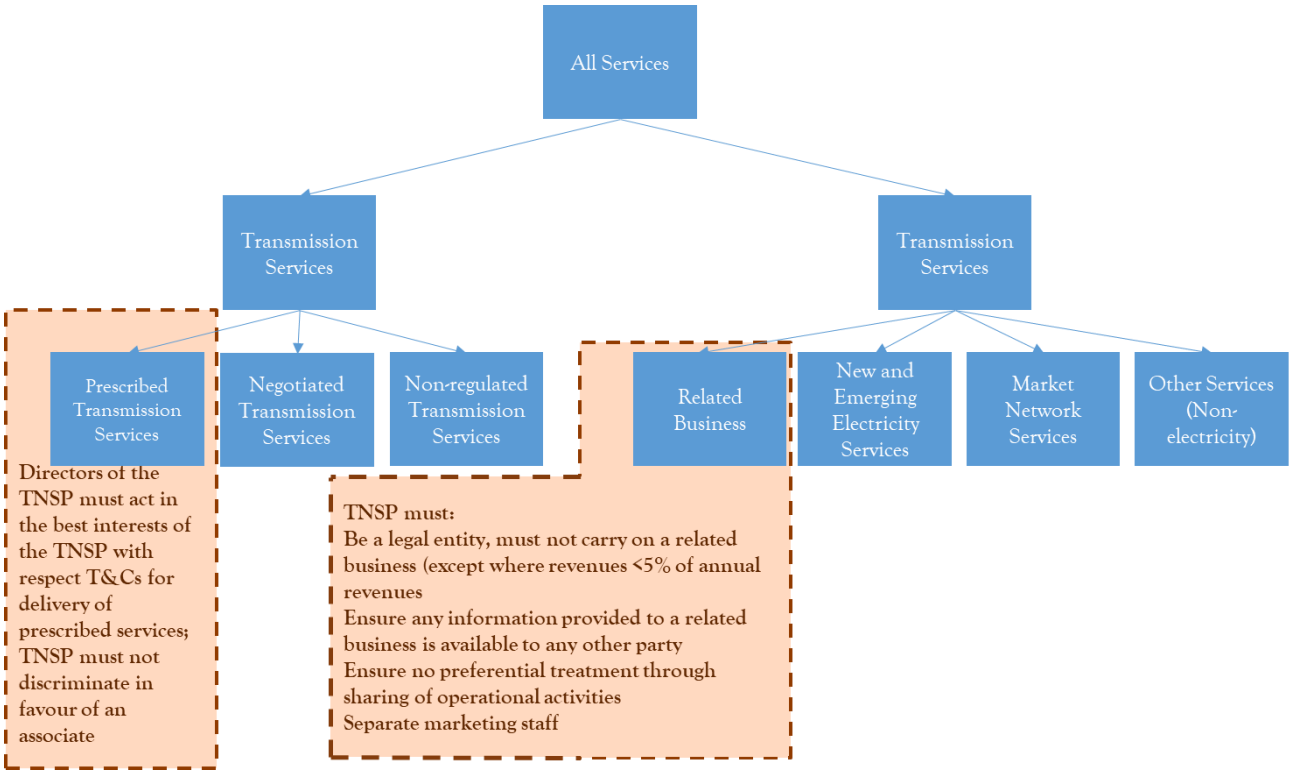
In addition to the obligations above, the current Guidelines impose legal separation between a TNSP that provides prescribed transmission services and a related business that provides electricity generation, distribution or retail services. The Decision accompanying the Guidelines states that legal separation of a TNSP and a related business "can be thought of as structural separation … as accounting separation alone does not effective prevent discrimination against a competing network user".[54] Based on our experience with

45 ACCC, *Guideline: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines*, 15 August 2002, cl. 7.7.
46 AER, *Ring-fencing Guideline Electricity Distribution*, Version 2, October 2017, cl. 4.2.2.
47 AER, *Ring-fencing Guideline Electricity Distribution*, Version 2, October 2017, cl. 4.2.4.
48 AER, *Electricity Distribution Ring-fencing Guideline - Explanatory Statement*, November 2016, p. 39.
49 AER, *Ring-fencing Guideline Electricity Distribution*, Version 2, October 2017, cl. 4.2.3.
50 AER, *Electricity Distribution Ring-fencing Guideline - Explanatory Statement*, November 2016, p. 37.
51 ACCC, *Guidelines: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines*, 15 August 2002, cl. 7.6(a).
52 AER, *Ring-fencing Guideline Electricity Distribution*, Version 2, October 2017, cll. 4.3.2 and 4.3.3.
53 AER, *Ring-fencing Guideline Electricity Distribution*, Version 2, October 2017, cll. 4.3.4 and 4.3.5.
54 ACCC, *Decision: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines*, 15 August 2002, p. 2.

developing and enforcing compliance with the Distribution Ring-fencing Guideline, we consider that legal separation is not, by itself, a sufficient ring-fencing tool to target discrimination. For example, an NSP might have a legally separate affiliated entity, but there may still be widespread sharing of staff, offices, branding, and commercially sensitive information.

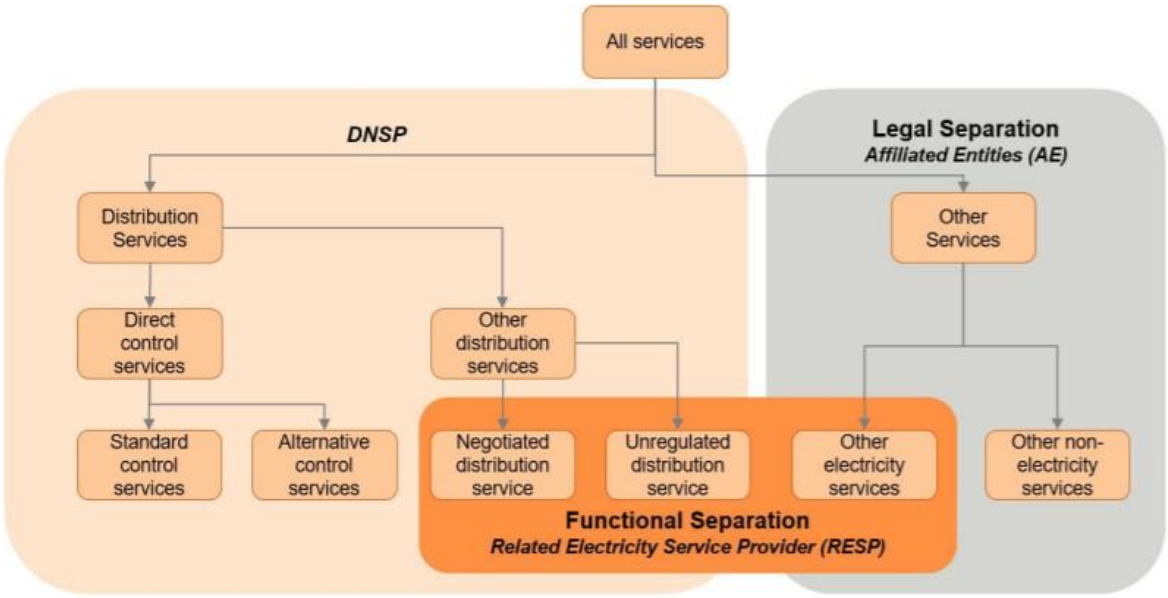
The following figure provides a summary of functional separation obligations between the TNSP and the related electricity service provider.

Figure 2. Measures to address discrimination in the current Guidelines



The following figure provides a summary of functional separation under the Electricity Distribution Ring-fencing Guideline of regulated distribution services and contestable electricity services (which is broader in scope than the equivalent 'related business' in the transmission framework).

Figure 3. Summary of functional separation under the Electricity Distribution Ring-fencing Guideline



In addition to the current transmission Guidelines, a number of other elements of the regulatory and legal framework that governs TNSPs are relevant to preventing discrimination. For example, the transmission connections framework under the TCAPA Rule Change does some of the work that ring-fencing might otherwise do to prevent discrimination in this market. This is discussed in more detail in section 3.2.1 below.

There are also a number of broad provisions in the Competition and Consumer Act (CCA) that support competitive markets, which apply across all sectors of the economy. Section 46 of the CCA requires that a business with a substantial degree of power in a market is not allowed to engage in conduct that has the purpose, effect, or likely effect of substantially lessening competition in a market. Section 50 of the CCA prevents a corporation from directly or indirectly acquiring shares in a body corporate or acquiring assets that would have the effective of substantially lessening competition in any market.

Differences in the regulatory and operating environment for TNSPs and DNSPs

The markets that rely on transmission services are in some respects quite different to the markets that rely on distribution services. Markets that interact directly with the transmission network include large scale generation and large industrial or commercial loads that are traded in the wholesale market. Direct customers of the transmission network tend to be larger, corporate entities with access to significant financial resources and specialist legal and technical advice. Residential and small business customers rarely interact with the TNSP in their area.

By contrast, DNSPs regularly interact with small and residential customers. These small customers generally have fewer resources and less access to specialist knowledge and advice in order to make decisions about the electricity services they require. The distribution network also supports different market segments compared to the transmission network. For example, small-scale distributed energy resources (DERs) connect to the distribution network and largely interact at a distribution level (although some services provided by DERs are sold into the wholesale market via aggregators). The differences in the types of markets that interact directly with transmission or distribution networks may have a bearing

on the kinds of harms that ring-fencing should address, and what kind of ring-fencing obligations might be proportionate to those harms.

There are also some differences between the regulatory framework for TNSPs and DNSPs under the NER. The AER defines a set of distribution services every five years that form the basis for a DNSP's distribution determination. This allows us to consider any new services that a DNSP might provide, or any services that were provided by a DNSP that can be now provided by contestable service providers. This allows for some flexibility in how ring-fencing is applied over time. By contrast, transmission services are defined in the NER and are not considered as part of the Framework and Approach for a transmission determination. While service classification for TNSPs is less complex, this may reduce flexibility in how the ring-fencing framework might be applied.

TNSPs and DNSPs also have different workforce profiles, which impacts the range of staff roles within the TNSP that may be in a position to provide an affiliate with discriminatory advantage through staff sharing. DNSPs tend to have a large workforce of staff, many with a wide range of customer-facing roles. TNSPs tend to have a much smaller workforce with a more narrow set of a relatively well-defined staff roles, reflecting the TNSPs role in managing a limited number of very large assets. This may affect our approach to staff separation obligations in an updated guideline.

Stakeholders should consider these different regulatory and operating environments in considering what ring-fencing arrangements might be appropriate for transmission businesses, and whether there should be differences between ring-fencing arrangements for distribution and transmission businesses.

3.2.1 Potential gaps in the current approach

We seek stakeholder views on whether the current Guideline adequately addresses the risk of discrimination by a TNSP in favour of a part of its business or an affiliate that provides contestable electricity services. In the sections below we consider potential harms arising from discrimination in relation to contestable transmission services, electricity generation and retail services, and other new and emerging contestable electricity services.

Contestable transmission services

The NER allows for separation between prescribed transmission services and other services provided by the TNSP,[55] including other kinds of transmission services. For the purposes of updating the transmission ring-fencing guideline, we must understand:

- what competitive markets exist in the provision of negotiated and/or non-regulated transmission services, and
- whether there is scope for TNSPs to harm the competitiveness of those markets by using their position as transmission network provider to discriminate in favour of an affiliate providing negotiated or non-regulated transmission services.

55 NER, cl. 6A.21.2(a)

Negotiated transmission services are provided on a monopoly basis by a TNSP, subject to an AER-approved negotiating framework. Therefore we see limited scope for harms arising from discrimination. Negotiated services include parts of an identified user shared asset (IUSA) in a transmission connection that cannot be provided on a competitive basis under the connections framework established in the TCAPA Rule Change.[56] Negotiated services also include shared transmission services that either exceed (or do not meet) network performance requirements, and system strength connection works.[57]

Question 6: The NER allows the AER to ring-fence prescribed services from any other service provided by the TNSP. For ring-fencing purposes, should negotiated services be treated as if they were prescribed services?

Non-regulated transmission services can be provided on a contestable basis, such as contestable connections. There are a number of potential harms that could arise when TNSPs compete against other third parties to provide non-regulated transmission services. As the transmission network operator, TNSPs sets the technical requirements for new connections and determine connection timeframes. This creates a risk that the business unit within the TNSP that provides contestable connections may have privileged access to information or gain an advantage through discriminatory decision-making on the part of the TNSP, to the detriment of third-party providers of connection services. There is also a risk that a TNSP may incorrectly allocate costs that it incurs in providing non-regulated services to regulated transmission services. Because these costs are recovered from all users of the transmission network from regulated transmission use of system (TUoS) charges, this cross-subsidy could allow the TNSP to bid for contestable work at below-cost prices, to the detriment of customers of the transmission network.

We consider that, in respect of connection services, these risks of discrimination are largely addressed by the TCAPA Rule Change. TCAPA put measures in place that reduce the opportunity for a TNSP to favour itself when competing to provide contestable connections for generators or load. The TCAPA rule change clarified that non-regulated transmission services comprise specific components of IUSA and dedicated connection assets and can be provided by the TNSP or any other service provider. This in turn places competitive pressure on TNSPs to improve their service offerings.[58] TCAPA also sets out the information that a TNSP must place on its website and provide to connection applicants on request, to ensure sufficient transparency of information and support competitive provisions of IUSA assets.[59] This is similar in some respects to requirements under the ring-fencing guidelines to ensure that the NSP or an affiliate of the NSP does not gain a discriminatory advantage due to privileged access to commercially sensitive information about the network. Moreover, we consider it reasonable to expect that parties connecting to the transmission network tend to be generally well-resourced, with access to specialist technical and legal advice and some

56 AEMC, Rule Determination: National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017, 23 May 2017, p. iv.

57 NER, cl. 10.

58 AEMC, *Rule Determination: National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017*, 23 May 2017, p. 39.

59 AEMC, *Rule Determination: National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017*, 23 May 2017, pp. 38-39.

negotiating power against the TNSP. We consider the TCAPA framework significantly reduces the scope for a TNSP to discriminate in favour of itself. Moreover, we understand that in some smaller markets where there are relatively few or infrequent connections to the transmission network (e.g. Tasmania), the TNSP remains an important provider of unregulated connection services.

There are a limited number of other kinds of non-regulated transmission services that are provided in the NER from time to time. For example, investments undertaken by a TNSP in one jurisdiction to meet an identified need in another jurisdiction on another TNSP's network as part of a RIT-T process is a non-regulated transmission service.[60] TasNetworks runs system protection schemes to achieve generation transfers across Basslink, which are non-regulated transmission services. However, we understand that aside from connection services, other types of non-regulated transmission services occur relatively rarely in the NEM. Some of these other (non-connection related) non-regulated transmission services appear to require involvement of the TNSP and have limited scope for competition. Some also appear to have similar features to connections that that they involve large, well-resourced customers with bargaining power against the incumbent TNSP.

Question 7: In what ways could a TNSP to discriminate in favour of part of the business or an affiliate providing non-regulated transmission services? To what extent does TCAPA address these harms?

Electricity generation and retail services

As part of our review of the current Guidelines, we intend to consider whether existing arrangements to prevent discrimination by a TNSP in favour of related business providing electricity retail and generation services are appropriate. As noted in section 2.2 of this paper, there are some instances of cross-ownership of generation and transmission in the NEM. Cross-ownership of generation and transmission may increase in the future.

The nature of generation services is also changing over time. Generation services can now be provided by batteries that are owned by the TNSP. For example, AusNet Services owns and maintains a battery at the Ballarat terminal substation and leases 100 per cent of the capacity of that battery to Energy Australia. Energy Australia uses the battery to sell electricity generation and buy electricity (as load) on the wholesale market. Under cl. 2.9.3 of the NER, an asset owner may appoint an intermediary to be registered as a generator on their behalf.[61] While this may fit the broad description of cross-ownership of generation and transmission, in this case AusNet Services is not carrying on a 'related business', i.e. the activity of generation.

Potentially, discrimination by a TNSP in favour of an affiliate that provides retail and generation services could result in several kinds of harms. These harms are in some respects quite unique to generation and retail, because generation and retail services are

60 AEMC, Rule Determination: National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017, 23 May 2017, pp. 88-89.

61 NER, cl. 2.3.9.

bought and sold on the wholesale market, and transmission networks provide physical access to the wholesale market for generators. Potential harms include:

- A TNSP might limit access to the wholesale market for a competing generator in order to advantage an affiliate. For example, a TNSP could schedule planned or unplanned outages in a way that provides an affiliate preferential access to the wholesale market at times of high prices.
- A TNSP might seek to enhance an affiliate's access to the wholesale market. For example, a TNSP may prioritise investment in the shared network to remove congestion and network constraints in order to favour an affiliate's generating units.
- A TNSP may share information about the network with its affiliate that is not publicly available. For example, information about short-term network capacity limits and constraints could influence an affiliate generator's wholesale market bidding strategy.

These and other potential harms were examined in detail in section 3 of the 2011 Consultation RIS.[62] The current Guidelines rely on a limited range of functional separation measures, including staff separation and restrictions on information sharing, to prevent the harms above. However, we consider the provisions in the current Guidelines are likely to be inadequate to control these potential harms to the operation of the wholesale market, for several reasons.

First, it would be difficult for the AER to detect and investigate a breach. For example, it would be difficult for the AER to distinguish favourable treatment from normal network investment or constraint management. Breaches of this nature could take place at a low level on an ongoing basis without causing significant wholesale market price events that might otherwise trigger an AER investigation. In investigating breaches of the Distribution Ring-fencing Guideline, the AER relies to a significant extent on reports from complainants that have interacted with either the DNSP or the affiliate and witnessed a breach, as well as self-reporting by DNSPs. As breaches relating the wholesale market may involve fewer 'eye witnesses' (being a matter between the TNSP and the affiliate only) fewer market participants may be in a position to bring matters of suspicion to the attention of the AER.

Second, the current Guidelines only prohibit 'marketing staff' from being shared between a TNSP and its affiliate. We consider there may be many other staff functions within a TNSP that might have access to information about the network or decision-making authority, and who could provide a discriminatory advantage to a related generation business. Moreover, the current Guidelines do not require office separation to physically separate staff from a TNSP and an affiliate.

Third, there are few information sharing restrictions in the current Guidelines. While the Guidelines state the purpose of this requirement is to restrict access to information that may provide an advantage to the associate, the Guidelines do not actually include any specific prohibitions on the sharing of information. The Guidelines do require that any information provided to an associate taking part in a related business must be made available to any

62 Ministerial Council on Energy Standing Committee of Officials, *Consultation regulation impact statement: Separation of generation and transmission*, 11 August 2011, pp. 20-30.

other party.[63] However, this approach does not provide a transparent or enforceable mechanism (such as an information sharing register with rules around its operation) to ensure information is shared.

We consider that higher degrees of separation between a TNSP and an affiliate providing generation and retail services may be justified as part of revisions to the current Guidelines. We note there are a number of mechanisms in place to ensure the transparency of wholesale market operations, including in relation to transmission network operations and constraints. We are interested in stakeholder feedback on the potential harms associated with cross-ownership of generation/retail and transmission, whether and how ring-fencing can adequately control these harms, and whether there are other mechanisms in NER that reduce risk of discrimination by a TNSP in favour of an affiliate providing generation and retail services.

Question 8. Should staff, office or branding restrictions be applied where a TNSP affiliated entity provides generation and retail services?

Question 9: The current Guideline permits a TNSPs to carry on a 'related business' if it earns revenue of less than or equal to 5 per cent of the TNSP's total annual revenue. Should this be retained in anew transmission Guideline?

New and emerging electricity services

The current Guidelines only apply to generation and retail services and do not apply to the whole range of contestable electricity services that a TNSP or its affiliate could now offer. We consider that a revised transmission ring-fencing guideline should make the regulatory treatment of these services clear.

At present, a TNSP is free to provide non-retail or non-generation contestable electricity services. Functional separation between the TNSP and the unregulated arm of the business is not required. For example, a TNSP could provide other contestable electricity service without need for staff, office or branding separation, or information sharing restrictions.

Information about the transmission network and knowledge that transmission staff have of transmission network operations could provide a competitive advantage to TNSPs in these markets. These potential harms are illustrated in the following two case studies.

Case study 1: A TNSP leases use of its battery to an affiliate

63 ACCC, *Guideline: Statement of Principles for the Regulation of Transmission Revenues - Transmission Ring-fencing Guidelines*, 15 August 2002, cl. 7.6(a).

Scenario. A TNSP builds a battery in one of its substations as a non-network solution to maintaining grid stability and voltage levels. The TNSP does not fully utilise the battery at the time of commissioning and so only 60 percent of the battery is added to the RAB. The excess capacity is built to accommodate potential increases in forecast demand over time. As a result, 40 per cent of the battery's total capacity can be leased out initially. The TNSP accepts an offer from its affiliate to lease 40 per cent of the battery to provide energy into the wholesale market. The affiliate pays a monthly capacity payment to the TNSP.

Potential harms. There are a range of harms that could arise from this situation:

- The lease payments to the TNSP may not accurately reflect the cost of using the battery. That is, the TNSP may incur costs that should be allocated to the affiliate, effectively cross-subsidising the affiliate. For example, even if the TNSPs correctly allocates the battery costs initially, a material change in use of the battery asset over time could result in cross-subsidy over time.
- There is a risk that the TNSP may over-invest in network infrastructure associated with the battery in order to improve wholesale market access for the affiliate. This would result in transmission customers incurring excessive investment risk and therefore indirectly cross-subsidising the services provided by the affiliate.
- The TNSP may provide short-term or real-time information on network congestion to the affiliate that is not publicly available. The affiliate uses this information to modify their bidding strategies.

Case study 2: The TNSP is contracted to build a behind-the-meter microgrid

Scenario. A large transmission-connected mine contracts a TNSP to build a microgrid to power the mine, including all behind the meter generation and reticulation, as well as ongoing management and operation of the microgrid. The microgrid is designed to provide self-generation for the mine to reduce their wholesale market risk exposure and reduce running costs. The mining company also commissions the TNSP to optimise and operate the microgrid and behind the meter controllable loads so that the mine operator can sell demand response into the wholesale market.

Potential harms. Potential harms that might arise from TNSP participation in the market for behind the meter microgrids might include:

- The TNSP may use information about planned transmission investments or future transmission constraints that are not yet public to advise the microgrid customer on investment in behind the meter generation that will optimise future self-consumption versus wholesale market exports.
- The TNSP may provide short-term or real-time information on network congestion, which is not publicly available, to the microgrid customer or use this information to help the customer optimise real-time management of microgrid exports to the wholesale market.

This case studies provide two examples of how TNSPs might participate in markets for new and emerging services contestable electricity services, which are quite different from generation and retail services that were the focus of the current Guidelines when they were first developed. These case studies are provided in an effort to draw out the nature of services that could be provided by TNSPs, and the harms (if any) that might arise as a result. We welcome further examples and case studies from stakeholders to help us draw out an understanding of the scope of harms ring-fencing aims to address. We also welcome information from stakeholders to help us understand whether there are other benefits (or costs) to consumers from ring-fencing restrictions affecting TNSP involvement in new and emerging markets for electricity services.

Question 10: What ring-fencing controls (if any) should apply to TNSPs participation in new and emerging contestable electricity services? Can you provide some examples of TNSPs delivering these kinds of services, and any associated harms (or benefits)?

4 Other considerations

This section briefly discussed a number of other issues that may influence or at least provide relevant context to our review of transmission ring-fencing.

Changing regulatory environment for TNSPs

The transmission sector is undergoing reform at a rapid pace, reflecting broad structural shifts in the NEM towards variable renewable energy generation and the increasing importance of distributed energy resources at a system-wide level. Some of these reform processes may impact transmission ring-fencing

In 2017 the AEMC undertook its first bi-annual Coordination of Generation and Transmission Investment (COGATI) Review. In 2018, AEMO published the first annual Integrated System Plan (ISP). Some reform programs associated with the COGATI process in particular may impact the development of transmission ring-fencing arrangements.

The AEMC's COGATI - access and charging review is currently exploring changes to transmission network access, including the introduction of a variation of nodal pricing termed by the AEMC as 'Dynamic Regional Pricing'. This will establish a price signal for network congestion on a dynamic basis, as transmission congestion occurs.

Significant changes are being considered as part of the COGATI access and charging review. These reforms could fundamentally change the opportunities that a TNSP currently has to discriminate in favour of an affiliate. Furthermore, the introduction of new pricing arrangements may make ring-fencing compliance and enforcement more complex. Indeed it is questionable whether ring-fencing would be sufficient in these circumstances and consideration of full structural separation may be a more appropriate response for policy makers to consider where TNSPs and generators are affiliated.

Question 11: Are there particular aspects of the COGATI reforms and other reforms affecting transmission we should take into consideration in developing a new transmission ring-fencing guideline?

Compliance reporting

The current Guidelines contains a number of compliance reporting mechanisms that can be invoked at the discretion of the AER. By contrast, the Distribution Ring-fencing Guideline mandates an annual cycle of reporting and independent auditing.

Box 5. Compliance reporting in the Electricity Distribution Ring-fencing Guideline

The Distribution Ring-fencing Guideline requires a DNSP to provide compliance report that describes:

- the measures the DNSP has taken to ensure compliance with its obligations under the Guideline
- any breaches of the Guideline
- all 'other services' provided by the DNSP
- the purpose of all transactions between the DNSP and an affiliated entity.

In addition, the Guideline requires independent assessments of compliance on an annual basis by a suitably qualified third party.

Regular compliance reporting has been a critical part of the transparency and effectiveness of the ring-fencing regime for distribution. In particular, independent assessors have been effective in critically probing DNSP ring-fencing arrangements, and bringing breaches and compliance issues to our attention.[64]

Our starting position is to align compliance reporting obligations for TNSPs with compliance reporting and independent assessment obligations in the Electricity Distribution Ring-fencing Guideline. We welcome stakeholder feedback on appropriate compliance reporting arrangements.

Question 13. Is regular compliance reporting and independent assessment of compliance with transmission ring-fencing required?

Waivers of guideline obligations

Waivers provide flexibility to remove or vary the requirement for a network service provider to comply with specific ring-fencing obligations.

The current Guidelines state that a waiver may be granted where the benefit, or likely benefit, to the public of compliance is outweighed by the administrative cost of compliance by the TNSP and its associates. The Distribution Ring-fencing Guideline states that the AER, in deciding whether to grant a waiver and what conditions should be included, should consider:

- the National Electricity Objective
- the potential for cross-subsidisation and discrimination if the waiver is granted or refused
- whether the benefit, or likely benefit, to electricity customers of the DNSP complying with the obligation would be outweighed by the cost of compliance, and
- any other matter that the AER considers relevant.

In addition to these assessment criteria, the Electricity Distribution Guideline also contains requirements for a DNSP in submitting an eligible waiver application.

64 AER, Annual compliance report on the Electricity Distribution Ring-fencing Guideline 2017-18, March 2019, p. 8.

Under the current Guidelines, the AER can grant waivers for any ring-fencing obligation. By contrast, not all clauses in the Distribution Ring-fencing Guideline are subject to waivers.

For DNSPs we have some flexibility with regard to service classification Where it is clear that a service can be best delivered by a DNSP, we can grant a 'reclassification of services' waiver until the end of the regulatory determination period, and then reclassify the service as part of the next Determination.[65]

Our current intention is to adopt the same waiver assessment criteria for the transmission guideline as the Distribution Ring-fencing Guideline and welcome stakeholder views on whether this approach is appropriate.

Question 14: Should we adopt a similar approach to waivers for transmission?

Transitional arrangements

It is likely TNSPs will not be in a position to comply with an updated transmission ring-fencing guideline on the day that it is published. Particularly if an updated guideline includes new obligations that are significantly different from obligations in the current Guidelines.

A longer transitional period could reduce the cost of compliance for TNSPs and, ultimately, electricity customers. However, there is risk TNSPs may use longer transition period to delay implementation, which we observed in regard to the Distribution Ring-fencing Guideline.

Our starting position, therefore, is to allow a relatively short transition period between when the final guideline is published, and the commencement date at which TNSPs must be compliant with the new guideline. In extenuating circumstances, waivers could be sought to extend the transition period for specific situations.

Question 15: What factors should the AER consider in determining a reasonable transition period?

65 AER, *Decision - DNSP applications for waivers from the Electricity Distribution Ring-fencing Guideline*, December 2017, pp. 18-43.

5 Appendix A—NER requirements

NER references to the transmission ring-fencing guideline

Clause	Element
6A.21.1	All TNSPs must comply with the Guideline.
6A.21.2(a)	The AER may develop Guideline that provide for accounting and functional separation between prescribed transmission services and other services provided by a TNSP.
6A.21.2(b)	The Guideline may include, but are not limited to, provisions for: • Legal separation • Separate financial accounts for prescribed transmission services and other services • Allocation of costs between prescribed transmission services and other services • Limitations on information flows • Provisions for ring-fencing waivers
6A.21.2(c)	In developing the Guideline the AER must consider consistency between distribution and transmission.
6A.21.2(d)	Guideline must be developed in accordance with the transmission consultation procedures.
6A.21.2(e)	The Guideline must be consistent with the Cost Allocation Principles, the Cost Allocation Guideline, the Pricing Principles for Prescribed Transmission Services, and the pricing methodology guidelines.

6 Appendix B—Description of transmission services

Prescribed transmission services are typically delivered at a standard service level to all transmission customers. TNSPs are required to provide these services by legislation or by AEMO, and they are subject to revenue regulation by the AER. There are four categories of prescribed transmission services are:

- Prescribed entry services - connection to the transmission system for a generator or group of generators
- Prescribed exit services - connection services to the transmission system for a load or group of loads (including a distribution network)
- Prescribed common transmission services - this is a standard network service that supplies the same service to all connected customers, regardless of location
- Prescribed TUoS (transmission use of system) services - these are services Services that supply specific benefits to certain customers based on where their connection point location on the transmission system.[66]

Negotiated transmission services are services supplied to a single customer or a small group, and are mostly connection services for generators and new industrial load customers. They are negotiated in accordance with a TNSPs negotiated transmission service criteria and negotiating framework, which is approved by the AER. Negotiated transmission services can also include shared transmission services that exceed standard service levels or connection works that contribute to overall system strength.[67]

Non-regulated transmission services are all other transmission services that don't meet the definition of a prescribed or negotiated transmission service. They are not subject to regulation under the NER as it is usually considered effective competition already exists for the provision of these services to customers, and therefore no regulated price setting is required.

Market network services refer to connections linking the national electricity grid at two connection points in separate NEM jurisdictions. An example of this is the Tas-Vic interconnector operated by Basslink. Market Network Service providers charge fees to participants using its service. Revenue from market network services is not regulated by the NER.

Transmission services are categorised in the NER as either prescribed transmission services, negotiated transmission services, or unregulated transmission services. The AER does not have any role in determining how a particular transmission service is to be categorised. This is distinct from the regulatory approach for distribution services. Under the regulatory framework for DNSPs, the NER contains broad provisions for distinguishing

66 NER, cl. 10.
67 NER, cl. 10.

different types of distribution services, but specific services are classified every five years by the AER in the Framework and Approach at the start of a DNSP's revenue determination process.[68] A TNSP's services are set in the NER and are not further defined in the determination process.

68 See for example, the form of regulation factors, NER cl. 6.2.2.