Australian Energy Market Commission

RULE CHANGE

DRAFT RULE DETERMINATION

National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2016

Rule Proponent(s)
COAG Energy Council

24 November 2016

Part B (planning) only

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About the AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

Summary

This draft determination sets out significant changes to the transmission connections arrangements, as well as changes to enhance the planning arrangements in the National Electricity Market (NEM). These changes will provide for a comprehensive and coherent transmission connection and planning framework.

The draft Rule improves transparency, contestability and clarity in the connections frameworks while maintaining clear accountability for shared network outcomes, as well as enhancing the transmission planning and decision-making frameworks.

The Commission has made this draft determination in response to a rule change request from the Council of Australian Governments' (COAG) Energy Council. The draft determination puts in place arrangements in response to recommendations made in the Australian Energy Market Commission's (AEMC or Commission's) Transmission Frameworks Review, which recommended, amongst other things, reforms to facilitate more efficient connections between generators and transmission businesses, as well as more coordinated planning arrangements.

The Commission's draft rule is a more preferable rule, but is broadly consistent with the intention of the proposals put forward in the rule change request.

Connections aspects

Why is there a need to change the current connections framework?

The AEMC's findings in the Transmission Frameworks Review and stakeholder input on this rule change request to date have highlighted a number of issues with the current Rules framework for connecting to the transmission network. Specifically, the current arrangements:

- are unclear, and are therefore open to a degree of interpretation by connecting parties and Transmission Network Service Providers (TNSPs);
- do not encourage the incumbent TNSP to provide connection services in a cost effective, transparent, simple or timely manner; and
- do not provide connecting parties with sufficient bargaining power to negotiate a better connection process or outcome than what is offered by the incumbent TNSP – for example, connecting parties are reluctant to raise disputes in relation to the connection because doing so might displease the only party that can connect them (that is, the incumbent TNSP) or delay the connection process further.

As a result, connection experiences and outcomes can be unpredictable, unnecessarily complex, lengthy and costly, and may vary across transmission network boundaries. The lack of a consistent approach to transmission connections across the NEM can create confusion for connecting parties, particularly those operating in more than one

jurisdiction. A successful connection may rely on connecting parties learning and accommodating the specific interpretations of a particular TNSP, which can add time and cost to a connection process. It could also result in sub-optimal decisions being made by parties about where to locate their project.

The last decade has seen a rise in the number of parties connected to the transmission network, most notably new wind generators and gas facilities. With falls in technology costs and policy drivers such as the Australian Government's large-scale renewable energy target (RET), an increasing number of new generators and load, including large-scale solar, are expected to seek connection to the transmission network. It is important that the connection framework is fit for purpose for these new connections.

Input from stakeholders indicates that connection costs account for roughly 10 per cent of a proponent's total project costs, and that the total project costs are in the order of several hundred million dollars. Improvements to the way in which parties connect to the transmission network are therefore likely to have an impact on project costs, and ultimately, the costs that are passed on to consumers. For example, the connection costs for a project with total costs of $300 million would be expected to be about $30 million. A ten per cent reduction in these connection costs equates to $3 million in potential savings. Scaling this up against the expected thirty to fifty large-scale generators that the Clean Energy Council considers will seek to connect to the NEM by 2020, equates to savings of over $100 million in the next three years.[1]

Overview of the draft Rule

The draft Rule adopts an approach that allows contestability for as many services as possible, while making it clear that the incumbent TNSPs, termed 'Primary TNSPs' in the draft Rule, remain responsible and accountable for outcomes on the 'shared' transmission network, such as operations and maintenance as well as access. The connection arrangements described below apply equally to generators, loads and Market Network Service Providers (MNSPs) connecting to the transmission network.

The draft Rule clarifies many existing aspects of the connection process, and the framework for economic regulation of services required to connect to the shared transmission network in order to remove ambiguity and scope for interpretation. In particular, the draft Rule defines two types of assets that provide the services required to connect a party to the shared transmission network – identified user shared assets and dedicated connection assets:

- identified user shared assets broadly describe the collection of components that are used to connect a generator, load or MNSP to the 'shared' transmission network and which, once commissioned, form part of the 'shared' transmission network, for example parts of a substation; while

- dedicated connection assets describe the collection of components that are used to connect a generator, load or MNSP to the 'shared' transmission network and which, once commissioned, are able to be isolated from electricity flows on the

1 Clean Energy Council, submission on discussion paper, p. 1.

transmission network, for example the power line that connects parts of a substation to a generating system.

The Commission is aware that stakeholders largely support a more contestable approach to transmission connections since they consider that such an approach will provide faster and cheaper connections. However, the Commission is of the view that the Primary TNSP should continue to be accountable for shared network outcomes in its licenced area. This model therefore allows contestability for as many services as possible, while making it clear that the TNSP has responsibility for control and operation of the shared transmission network, promoting a reliable, safe and secure network for consumers.

The draft Rule clarifies that all services provided for new dedicated connection assets, including design, construction, ownership, operation and maintenance, can be provided by any party on commercial terms. This is because the risks of inadequate design, construction and operation of those assets fall on that user alone, and the shared network can be protected if appropriate action is taken.

However, because identified user shared assets form part of the shared transmission network, the new arrangements for these assets makes sure that the safety, reliability and security of the transmission network can be maintained while enabling parties to connect at efficient cost. The Commission considers that this is best achieved when there is one party accountable for outcomes on the shared transmission network. Therefore, the draft Rule allows for the services of detailed design, construction and ownership to be provided on a contestable basis to the extent that they meet a set of criteria as to what is contestable. However, the services of setting the functional specification, providing cut-in works, operation and maintenance of identified user shared assets must be provided by the Primary TNSP as negotiated transmission services.

Regardless of whether the assets required for connection are 'dedicated connection' or 'identified user shared', the draft Rule makes it clear that these assets are transmission systems, and so therefore any party that owns, controls or operates one of these assets is required to be registered as a TNSP or be exempted from that requirement.

In addition, the draft Rule amends the existing process by which parties connect to a transmission network, with the aim of strengthening a connecting party's negotiating power with a TNSP by:

- enhancing the transparency of the connection process by requiring TNSPs to publish certain information about the specifics of connecting to their network on their websites and provide certain information to connection applicants on request;

- strengthening the principles that underpin negotiations for services required to connect to the shared transmission network and removing the requirement for TNSPs to develop individual negotiating frameworks for approval by the Australian Energy Regulator (AER);

- providing for a process by which an independent engineer can be engaged to provide advice on a technical issue related to a connection if either the connecting party or the TNSP requests it; and

- clarifying the process that applies to the resolution of disputes raised in relation to transmissions connections.

The Commission has also considered how distribution network service providers (DNSPs) connect to the transmission network and has concluded the current arrangements are largely appropriate and fit-for-purpose. Therefore, the draft Rule does not change the process of a DNSP connecting to a transmission network, aside from providing for a situation where a DNSP could connect to a dedicated connection asset.

Expected outcomes of the rule change

The draft Rule should make the transmission connection process faster and quicker for connecting parties, as well as giving them more control. This ultimately should lead to lower costs for consumers. Specifically:

- The draft Rule relies on some cost and timing information to be revealed through a competitive market; but also sets out regulatory obligations on the TNSP to provide certain information that will help a connecting party make informed decisions. The combination of these two paths for information being revealed will result in more efficient information being obtained by connecting parties.

- Having the services of detailed design, construction and ownership able to be provided on a non-regulated basis provides the connecting party with more control over the timing of its connection to the transmission network.

- The model also allows for competition in the provision of services for which the Commission and stakeholders consider there already is, or will be, a market. Promoting competition, where appropriate, should result in lower cost outcomes.

- Accountability is clear because the draft Rule provides that identified user shared assets form part of the transmission network and, once commissioned, will be under the full operational control of the Primary TNSP. Therefore, the safe, reliable and secure operation of the transmission network should be promoted.

Victorian arrangements

The framework under which the Victorian connection process is based is fundamentally different to the processes and principles underlying the connection framework used in the rest of the NEM. This is because Australian Energy Market Operator (AEMO) is authorised to exercise declared network functions in Victoria. Given this, the rule change request seeks to isolate most of the proposed changes to the connections framework from any jurisdiction where AEMO is authorised to exercise its declared network functions. The Commission is of the view that the scope of the rule change request does not include consideration of the application of these draft Rules to

AEMO's declared network functions. Therefore, under the draft Rule, the proposed changes to the transmission connections framework will not apply in Victoria.

However, the COAG Energy Council requested the Commission to provide advice on whether the rule changes should, or should not be adopted, in declared network jurisdictions. In the determination, the Commission outlines a number of ways the approaches to connections in Victoria and the rest of the NEM could be harmonised and made more consistent.

Planning aspects

Why is there a need to change the current planning framework?

Currently there a number of mechanisms that work together in the Rules to promote an efficient and transparent transmission network planning process. In turn, they help to promote an efficient, strategic and co-ordinated transmission network. Responsibility for transmission planning in the NEM is shared between AEMO, in its role as National Transmission Planner; and jurisdictional planning bodies, for each region of the NEM, which are typically the local TNSP.

The Commission considers that while the existing planning process is effective, there are a number of measures that could be undertaken to enhance the efficiency of existing arrangements and promote a more coordinated approach to transmission planning.

Overview of the draft Rule

The draft Rule makes a number of enhancements to the planning frameworks, specifically it:

- requires TNSPs to include certain additional information in its Annual Planning Report on key changes since the last Annual Planning Report, the forecasting methodology used for forecast loads and more detailed information regarding network constraints;

- requires the AER to develop a guideline to support consistency across Annual Planning Reports; and

- requires TNSPs to undertake joint planning with other TNSPs where there is the potential for investments in other transmission networks to deliver market and reliability benefits in their own network.

Under the draft Rule the proposed changes to the transmission planning frameworks will apply in Victoria.

Expected outcomes of the rule change

The draft Rule promotes more efficient and consistent arrangements for supporting investment across regional boundaries, potentially lowering prices to consumers over the long-term and promoting a nationally coordinated planning approach. This makes sure that the investment options identified to meet a given investment need take into account all potential options, and are not limited by geography or jurisdiction. Increased transparency and coordination on network planning should also assist market participants, and other interested stakeholders, supporting their own investment and operational decisions.

Implementation

The draft Rule does not contain savings and transitional provisions. A paper outlining a complete savings and transitional proposal, along with draft Rules relating to this component, will be published for comment in mid-January 2017.

Consultation

We invite stakeholders to provide submissions on this draft determination, which we will consider before making a final determination in March 2017.

We will hold a series of meetings with stakeholders during December 2016 and January 2017. Stakeholders wishing to meet with the AEMC should contact Claire Richards at 02 8296 7875 or claire.richards@aemc.gov.au.

Submissions close on 27 January 2017.

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1 The COAG Energy Council's rule change request

1.1 The rule change request

On 27 July 2015, the COAG Energy Council made a request to the Australian Energy Market Commission (AEMC or Commission) to make a rule regarding transmission connection and planning arrangements (rule change request). The rule change request is largely based on the connections and planning recommendations made by the AEMC in the Transmission Frameworks Review, which was completed in 2013.[2] The objective of the recommendations made by the AEMC in the Transmission Frameworks Review was to improve transparency, contestability and clarity in the connections frameworks while maintaining clear accountability for shared network outcomes, and to enhance the transmission planning and decision making frameworks.

Specifically, the rule change request proposes to:

- clarify the definitions for connection assets, connection services and service classifications;
- enhance contestability in the connection arrangements;
- improve the transparency of information provided to seekers of negotiated transmission services;
- establish a framework for the nomination of independent engineering experts who may provide independent advice around the appropriateness of the technical specifications for a particular connection asset;
- support a nationally coordinated planning approach so that both intra-regional and inter-regional options are considered when a Transmission Network Service Provider (TNSP) is determining the optimal investment;
- establish a process of formal consultation in the development of the National Transmission Network Development Plan; and
- introduce a uniform approach to Annual Planning Reports.[3]

The rule change request and accompanying proposed rule are available on the AEMC website.[4]

2 See http://www.aemc.gov.au/Markets-Reviews-Advice/Transmission-Frameworks-Review

3 COAG Energy Council, Transmission Connection and Planning Arrangements, rule change request, July 2015, p. 2.

4 See http://www.aemc.gov.au/Rule-Changes/Transmission-Connection-and-Planning-Arrangements

1.2 Current arrangements

This section summarises the current arrangements for transmission connections and planning under the National Electricity Rules (Rules). These arrangements are described in further detail in the consultation paper on the rule change request that was published on 26 November 2015.[5]

1.2.1 Connections

The shared transmission network facilitates the secure and integrated operation of the electricity power system and flows of electricity between parties that produce electricity (generators) and those that consume electricity (end users or consumers). This shared transmission network is a meshed network, so it is nearly impossible to separate out those assets that provide services to a particular party from those that provide services to all users of the network.

Generators, large energy users (referred to in this draft determination as load), MNSPs and distribution networks need to connect to the shared transmission network in order to facilitate these flows of electricity. The need for, and ongoing use of, assets that are used to facilitate these connections can be attributed to the party that uses them to connect. Connection arrangements include the process by which these parties connect and the services and assets that are provided in order for them to connect.

The National Electricity Market (NEM) operates under an open access regime in which generators have a right to negotiate a connection to the network in accordance with the Rules, but no right to the regional reference price.[6] Generators earn revenue by being dispatched. The physical dispatch of electricity is determined by dispatch offers from generators, and the level of network congestion.

There are two main parts of the Rules that relate to transmission connection arrangements:

- Part A of Chapter 5, which sets out the connection process, regulates aspects of the technical and contractual arrangements needed to connect, and sets out the obligations on parties throughout the connections process; and
- Chapter 6A, which covers the economic regulation of the provision of transmission services - that is, whether transmission services are to be provided as prescribed, negotiated or non-regulated services and consequently how they are economically regulated - and specifies the terms and conditions of access to

5 See http://www.aemc.gov.au/Rule-Changes/Transmission-Connection-and-Planning-Arrangements

6 Clause 5.4A of the current Rules appears to contemplate generators negotiating firm transmission network user access with TNSPs i.e. for generators to negotiate compensation from a TNSP in the event they are constrained off or on the network, in return for an access charge. However, this provision cannot work in practice because the scheme is not mandatory and all generators have open access to the network. This is discussed further in chapter 4.

be applied by TNSPs for the provision of prescribed and negotiated transmission services.

Part A of Chapter 5 - the connection process

Part A of Chapter 5 of the Rules sets out the six main steps by which parties[7] negotiate a connection to the transmission network. These are, by reference to the relevant clauses in the current Rules, summarised as follows:

1. connection enquiry (clause 5.3.2), where the applicant makes an enquiry to the TNSP;

2. response to the connection enquiry (clause 5.3.3), where the TNSP informs the applicant of the information that it must provide the TNSP, and the amount of the application fee;

3. application for connection (clause 5.3.4), where the applicant makes an application to the TNSP to connect to the network and pays the application fee as specified above;

4. preparation of the offer to connect (clause 5.3.5), where the TNSP prepares the offer to connect, with this offer having to be made within a certain time period;

5. offer to connect (clause 5.3.6), where the TNSP makes the offer to the applicant; and

6. finalisation of the connection agreements (clause 5.3.7), where the applicant accepts the offer following negotiations and enters into a connection agreement with the TNSP.

This process is a staged negotiation with defined timeframes for each step in the process. The regime is relatively prescriptive, providing for clear accountability of the TNSP at the various stages of the process. However, the Commission understands that, in practice, there are additional steps in the process as parties exchange relevant information in order to finalise negotiations.

This framework applies to new connections, as well as modifications to existing connections. It also covers the negotiation of costs and the specification of connection assets.

Chapter 5 of the Rules contains provisions relating to technical standards, which define the level of performance required of the equipment that makes up, or is connected to, the power system (e.g. generating plant). These include rules defining:

- the standards to which the system as a whole must perform;[8] and

7 That is, generators, loads, MNSPs and DNSPs.

8 Schedule 5.1 of the Rules. AEMO has a role in negotiating generator performance standards.

- the automatic access standard and minimum access standard for equipment connecting to the power system (known as "access standards") - which become the "performance standards" for each connecting party, once they are negotiated and the connection agreement is in place.[9]

Performance standards are relevant to this rule change because the process by which these are negotiated for a specific connection occurs through the connection process set out above. As such, the process for negotiating performance standards for connecting equipment and the process for negotiating the services and assets that are required for connection to the shared transmission network occur concurrently and are interdependent.

Chapter 6A - economic regulation of transmission services

Chapter 6A of the Rules provides for economic regulation of the following services:

- Prescribed transmission services[10] - The costs of providing these services are recovered from transmission network users, with the revenues that a TNSP can recover for these services regulated by the Australian Energy Regulator (AER) pursuant to the transmission determinations made for each TNSP that provides these services under Chapter 6A.

- Negotiated transmission services[11] - There is no regulation of the revenues that a TNSP can earn for the provision of negotiated transmission services. The terms and conditions, including price, of the provision of these services are negotiated between the TNSP and the party who wishes to receive these services under a framework set out in Chapters 5 and 6A. As part of a TNSP's regulatory determination, the AER approves the negotiated transmission service criteria and negotiating framework that the TNSP will comply with when negotiating access to its negotiated transmission services. Chapter 6A sets out the principles on which the approved framework must be based.

- Chapter 6A envisages that TNSPs may also provide other transmission services that are unregulated, as they do not fall within the definitions of prescribed transmission service or negotiated transmission service. These services are provided by the TNSP outside the Rules framework.

Chapter 6A also sets out a framework for the resolution of disputes about the provision of prescribed or negotiated transmission services.

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9 The access standards define the parameters of the technical obligations on network users and network owners when negotiating the connection of a generating unit, a MNSP or an end use customer. These standards are set out in Schedules 5.2 and 5.3 of the Rules.

10 *Prescribed transmission service* is defined in Chapter 10 of the Rules and broadly includes those services provided in relation to the shared transmission network.

11 *Negotiated transmission service* is defined in Chapter 10 of the Rules and broadly includes those services provide in relation to a party's connection to the shared transmission network.

Assets and services required to connect to the transmission network

Every connection to the shared transmission network requires the TNSP to provide a connection service. However, the current definition of *connection service* in the Rules, below, does not make clear the exact scope of the services required.

connection service

An *entry service* (being a service provided to serve a *Generator* or a group of *Generators*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*) or an *exit service* (being a service provided to serve a *Transmission Customer* or *Distribution Customer* or a group of *Transmission Customers* or *Distribution Customers*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*).[12]

The Commission understands that a connecting party may require the TNSP to provide some or all of the following assets and services to connect to the transmission network:

- The construction, operation and maintenance of any assets that are required to 'cut-in' to the existing shared transmission network.

- The design, construction, operation and maintenance of new assets (e.g. a substation) that will form part of the shared transmission network to facilitate the connection, or upgrades to existing assets, and/or any other upgrades to the shared transmission network (such as communication or protection systems) that are necessary to meet the requirements of the Rules as a result of that connection.

- The design, construction, operation and maintenance of an "extension" from the party's facilities to the shared transmission network. For example, in the case of a generator connecting, this asset is often considered to be a transmission line that runs from the generating system to the substation on the shared transmission network.

However, as identified in the Transmission Frameworks Review, the Rules do not clearly set out or classify how the services to be provided in relation to the assets described above are to be classified (e.g. prescribed, negotiated or non-regulated). A degree of interpretation is therefore required by both TNSPs and connecting parties to establish their respective rights and obligations with regard to connections. As a result, connection processes can differ depending on which TNSP is involved.

Set out below is the AEMC's understanding of the current practice of most TNSPs for the connection of generation, load and DNSPs. This is intended to illustrate the key concepts and terms that are used in the current connections provisions of the Rules. This section largely reflects what was set out in the consultation paper on this rule change request. In submissions to that consultation paper, several stakeholders disagreed with the AEMC's interpretation of some of the services required to connect to the transmission network and how they are regulated (if at all). The Commission has further developed its understanding of these issues and this section reflects that.

12 See Chapter 10 of the Rules.

Nevertheless, the Commission considers that these differences in the interpretation of the existing Rules demonstrate a need to clarify the Rules to provide clarity on how these assets and services should be dealt with in the connection process.

Similarly, the Commission understands that connecting parties have had different experiences with the connection process as a result of the culture and practice of the individual TNSPs, and that a number of TNSPs are working to improve the overall experience for connecting parties. The Commission is also aware of work that ARENA and the ENA are doing to share lessons on the connection process for large scale solar projects. While the Commission is supportive of these efforts, it considers that there is still value in setting out a clear framework in the Rules that drives a more consistent connection process across TNSPs in differing jurisdictions.

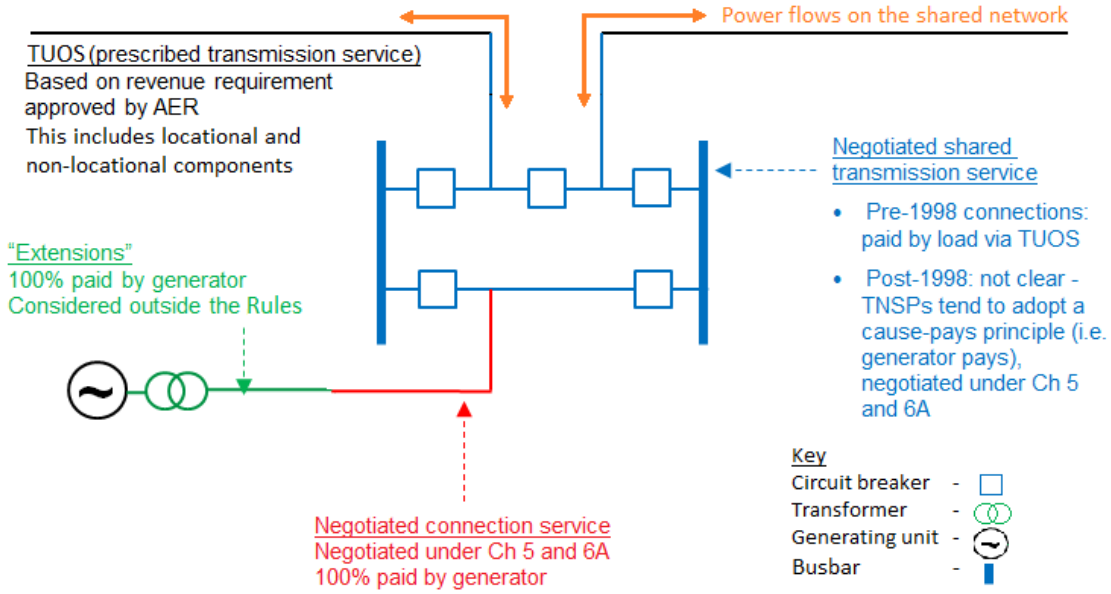
Stakeholder input also indicates that connecting parties face similar experiences when connecting load or generation to the distribution network - that is, the timeliness, cost and complexity of connections to the distribution network can vary between DNSPs depending on their culture, level of experience in connecting parties of a certain type (e.g. renewable generators) and interpretation of relevant regulations. While many of the proposals put forward in this rule change request would be applicable to connections to the distribution network, its scope is limited to connections to the transmission network only. If stakeholders consider that the arrangements set out in this draft determination should apply to connections at the distribution level, a separate rule change request would need to be submitted.

Generator connection

Figure 1.1 provides a simplified illustration of the AEMC's understanding of the services that may be required to connect a new generator to the transmission network, and what form of regulation the provision of these services is subject to.[13] Note that this example is one of a connection where a new substation is needed to connect the generator, i.e. the diagram does not address a generator connecting to the shared transmission network via an existing substation.

13 The Commission understands that the arrangements to connect a MNSP are the same as those for the connection of a generator, although they negotiate different performance standards under the Rules.

Figure 1.1 Current generator connection charging, based on our understanding of current practice



The transmission line at the top of the diagram (shown in black) is part of the shared transmission network. Prior to the connection, this line was unbroken. Services provided by the shared transmission network are paid for by customers through transmission use of system (TUOS) charges. Generators do not pay for shared transmission services.

Other than this black line, everything else in the diagram is new and is constructed to allow the generator to connect. In order to connect the generator, the existing transmission line is cut into (i.e. split) and a new substation is built and connected to it. This service is provided by the incumbent TNSP as a negotiated transmission service. Once operational, all electricity in that part of the network flows through that substation and the substation therefore forms part of the shared transmission network. The new substation is shown in blue.

A physical link or 'connection' is also needed within the TNSP's substation to connect the generator to the new substation, shown in red. This service usually comprises the provision of the physical connection plus any assets that are used exclusively by the generator and are located within the incumbent TNSP's area of control. Most TNSPs consider the connection point to be located at the point where the red and blue lines meet. However, some consider this point to be at the fence that separates the incumbent TNSP's area of control (i.e. the substation) and the generator's land. This physical connection (the assets shown in red) is provided by the TNSP as a negotiated transmission service, and so is paid for fully by the generator.

The generator may also require a new transmission line to be constructed from its facilities to the boundary of the assets that are used to provide the connection service. In this diagram, this new line is referred to as an 'extension', which is consistent with the practice of most TNSPs who consider this line to fall within the definition of

extension under the NER.[14] Under this interpretation, the extension is considered to comprise any assets, most likely power lines, between the generator's facilities and the substation. Depending on how close the generator's facilities are to the substation, this extension could be anywhere from only a few metres long to hundreds of kilometres long.

The AEMC understands that current practice is that the generator may elect to construct and operate this extension itself, engage a third party to do so, or request the TNSP to do so on an unregulated basis. Therefore, TNSPs treat extensions as a non-regulated transmission service on the basis that they are contestable and do not fall within the definition of negotiated transmission service. As such, TNSPs consider that they are not obliged to provide extensions or be subject to their negotiating framework when negotiating any terms and conditions for the provision of extensions. That is, these assets (and the services provided by means of those assets) are considered to sit outside the scope of the economic regulatory framework in the Rules.

Regardless of the uncertainty about how these different services are defined, the practice of all TNSPs is that the connecting generator is required to pay for all of the services that are required for it to connect to the transmission network.[15] The only assets in Figure 1.1 that are not paid for by the connecting generator are those represented by the black line, i.e. the existing shared network. The classification of the services required to connect to the transmission network as either negotiated or non-regulated affects important matters such as how charges and other terms are determined and whether TNSPs are required to provide them, but not who pays for them.

Load connection

This section describes the AEMC's understanding of the services that may be required to connect a new load to the transmission network - that is, customers who are directly connected to the shared transmission network - and what form of economic regulation the provision of these services is subject to. As above, this section assumes that a new substation is needed to connect the load, i.e. it does not address a load connecting to the shared transmission network via an existing substation.

14 See Chapter 10 of the Rules.

15 There may be some circumstances where the services provided by a new substation to a generator could be classified as prescribed transmission services and therefore paid for by all customers, not the generator. This could occur if the TNSP applied the Regulatory Investment Test for Transmission (RIT-T) to the investment because it was a credible option to address an identified network need. However, these circumstances are rare and are not considered in this draft determination. The Commission also notes that generators that were already connected prior to the start of the NEM do not pay any share of the costs of the existing substations to which they are connected, or contribute to the ongoing maintenance of those substations. These connections were grandfathered in 2006 as providing prescribed transmission services under clause 11.6.11 of the Rules.

In order to connect the load, as with generation, the existing transmission line is cut into (i.e. split) and a new substation is connected to it. Once operational, electricity in that transmission network flows through that substation.

Contrary to what the AEMC set out in its discussion paper, the Commission now understands that the practice of the majority of TNSPs in recent years has been to treat the substation as providing a negotiated transmission service (i.e. the same as generators), and so the costs are paid for fully by the load.[16] This means that the services, and regulation of those services, to connect a load are the same as those for a generator. That is:

- a new substation is required, which is treated as a negotiated transmission service and so paid for by the load as a negotiated transmission service provided by the TNSP;
- a physical link or "connection" is required, which is treated as a negotiated transmission service and so paid for by the load as a negotiated transmission service provided by the TNSP; and
- a new transmission line is constructed from the facility to the boundary of the assets used to provide the connection service, which would be treated as an extension, and so the load may elect to construct and operate this extension itself, engage a third party to do so, or request the TNSP to do so as a non-regulated transmission service.

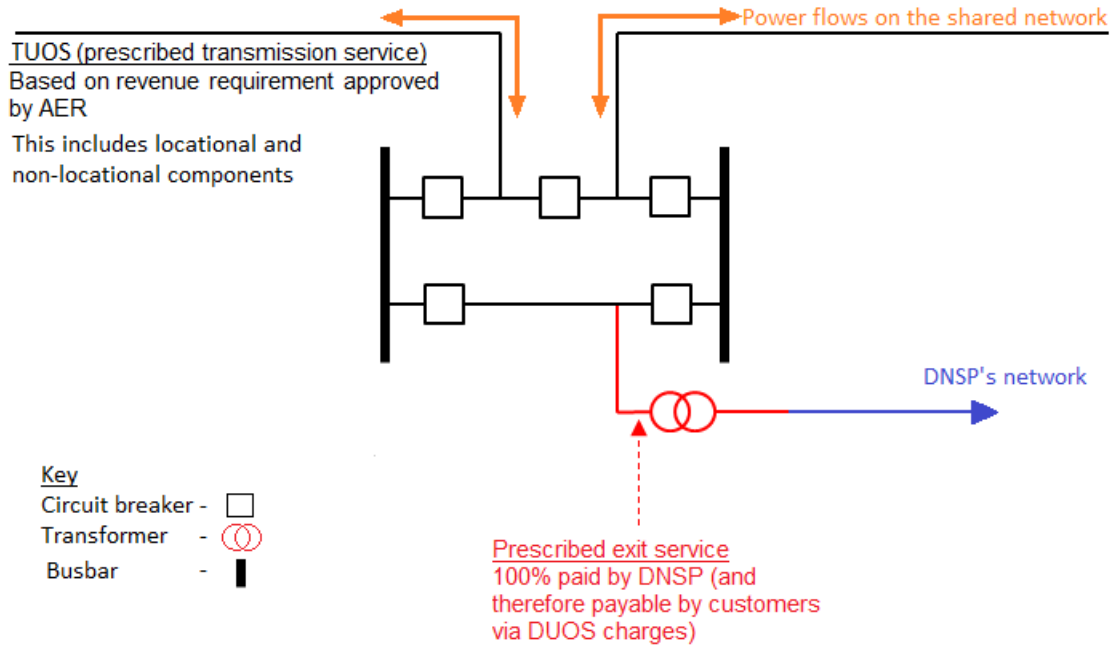
DNSP connection

Figure 1.2 provides a simplified illustration of the AEMC's understanding of the services that may be required to connect a new distribution network service provider (DNSP) to the transmission network, and what form of regulation the provision of these services is subject to.[17] As above, this connection implies that a new substation is needed to connect the DNSP, i.e. the diagram does not address a DNSP connecting to the shared transmission network via an existing substation.

16 The Commission understands that TNSPs' interpretation of the arrangements that apply to the connection of load to the transmission network has changed over time.

17 Under the Rules, DNSPs and TNSPs must undertake joint planning, which includes assessing the adequacy of existing transmission and distribution networks and the assets associated with distribution connection points. Arrangements for the connection of a DNSP to the transmission network under the draft Rule are discussed in appendix E.

Figure 1.2 Current DNSP connection charging, based on our understanding of TNSP practice



For the connection of a DNSP, the substation is considered to form part of the shared transmission network. Unlike a generator or load connection, and as required by the Rules, TNSPs treat this new substation as providing a prescribed transmission service, and so it is paid for by transmission customers.[18]

The costs associated with the provision of prescribed services (i.e. the substation above) are split into locational and non-locational components. That is, a share of the costs are attributed to the connection point at which they are incurred, while the other share of the costs is spread across all customers using a "postage stamp" method (a charge that does not vary by location or the level of utilisation of assets). So, through this method, the connecting DNSP (or the customers on the DNSP's network) should, in practice, pay for some proportion of the costs of the substation.

The physical link or connection (shown in red) is treated as a prescribed exit service,[19] which is charged to the DNSP through TUOS charges. Ultimately, customers pay this through distribution use of system (DUOS) charges.

An 'extension' as such is not required - the physical connection simply links the transmission network to the distribution network, but either the TNSP or the DNSP may need to augment their network to create this proximity.

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18 TNSPs also collect revenue from customers via a prescribed common transmission service charge, which is the sum of non-asset related common service costs and common service asset revenue.

19 Defined in Chapter 10 of the Rules as "A service provided to serve a *Transmission Customer* or *Distribution Customer* or a group of *Transmission Customers* or *Distribution Customers*, or a *Network Service Provider* or a group of *Network Service Providers*, at a single *connection point*).

Arrangements in declared network jurisdictions

Under the National Electricity Law (NEL), jurisdictions can authorise AEMO to exercise declared network functions.[20] Such jurisdictions operate under a different regulatory framework in relation to the planning of investment in, and connection to, the transmission network. Where such arrangements apply, there is a separation of ownership of the declared transmission system from certain aspects of the operation and control of that system. AEMO is responsible for the provision of shared transmission services by means of, or in connection with, the declared shared network, and plans, authorises, contracts for and directs augmentation of the declared shared network. Declared Transmission System Operators (DTSOs) own and operate the system, subject to the functions conferred on AEMO. In relation to connections, broadly, AEMO is responsible for all new generator, load, MNSP and DNSP connections against the Rules requirements, but it is not responsible for providing the assets associated with connection. For generators, large loads and MNSPs, generally the assets associated with connection are provided by a supplier of the connecting party's choice.

Victoria is the only NEM jurisdiction where AEMO is authorised to exercise these functions. Given this, the arrangements to connect to the transmission network in Victoria are different to the arrangements to connect in all other NEM jurisdictions. In Victoria, AEMO is responsible for assessing all new connections to the declared shared transmission system against the Rules requirements, but is not responsible for providing the assets associated with connection. If a connection requires an augmentation to the declared shared network, AEMO will determine whether the augmentation is contestable or non-contestable.[21] If AEMO determines that the augmentation is contestable, the connection applicant can nominate a DTSO of its choice to build, own and operate the contestable assets, or it can ask AEMO to select a DTSO through an invitation to tender. If AEMO determines that the augmentation is not contestable, the assets will be provided by the incumbent DTSO, typically AusNet Services. A more detailed description of these arrangements is set out in chapter 6 of this draft determination.

1.2.2 Planning

Transmission planning relates to the process of determining the investment needs of the transmission network in general terms, not specific investment decisions. Planning should create an informed basis for making specific investment decisions.

There are a number of mechanisms that work together in the Rules to promote an efficient and transparent planning process for transmission systems. In turn, they help to promote the development of an efficient and coordinated transmission system.

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20 Part 5, Division 2, Subdivision 3, section 50C of the NEL.

21 An augmentation is contestable if its capital cost is reasonably expected to exceed $10 million and it is capable of providing a distinct service as defined in clause 8.11.6(a) of the Rules.

Transmission network planning arrangements should assist in strategic decision making across the NEM.

Responsibility for transmission planning in the NEM is shared between:

- AEMO, in its role as National Transmission Planner; and
- jurisdictional planning bodies in each region of the NEM (typically the local TNSP).[22]

Table 1.1 sets out the jurisdictional planning body in each NEM region.

Table 1.1 Jurisdictional planning bodies

Region	Jurisdictional planning body
Queensland	Powerlink
NSW (and ACT)	TransGrid
Victoria	AEMO
South Australia	ElectraNet
Tasmania	TasNetworks

There are a number of different forms of transmission planning, which are described below.

Long-term planning

Long-term planning is focused on the need for major, new transmission investments over the long term. Long-term planning in the NEM is largely undertaken by AEMO as the national transmission planner.[23] In undertaking this function, the National Transmission Planner is required to produce the National Transmission Network Development Plan, which provides "an independent, strategic view of the efficient development of the NEM transmission grid over a 20-year planning horizon."[24] The National Transmission Network Development Plan focuses on major transmission flow paths (that is, those areas of the transmission network connecting major generation or demand centres). Planning is undertaken over a number of different scenarios,

22 The exception to this is in Victoria, where AEMO is the jurisdictional planning body as part of its declared network functions. And, while ElectraNet is the jurisdictional planning body for South Australia, AEMO performs additional advisory functions there.

23 TNSPs may also undertake long-term planning for their own networks, although this is not required under the Rules.

24 See http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/National-Transmission-Network-Development-Plan

covering different economic and government policy outcomes, demand forecasts and also generation scenarios.

Other documents produced by AEMO that are relevant to long-term strategic planning include:

- the National Electricity Forecast report, which provides annual energy and maximum demand forecasts over the next ten years for each NEM region;
- the Electricity Statement of Opportunities, which provides an assessment of supply adequacy in the NEM over the next 10 years, highlighting opportunities for generation and demand-side investment;[25] and
- the NEM Constraint report, which provides details on constraints in the transmission network.

Short-term planning

Detailed transmission planning is undertaken by each of the jurisdictional planning bodies (that is, in most cases, the TNSPs). Under the Rules, parties must produce short-term plans for their network. This is done through annual planning reviews, which must be undertaken by the jurisdictional planning bodies. The results of the annual planning review must be published in an Annual Planning Report by 30 June each year.

Annual Planning Reports draw upon the National Transmission Network Development Plan but outline more specific investment needs and drivers for the network in question. Annual Planning Reports contain details of potential network investments given forecast loads in a particular network. Under the Rules, the plans must cover at least the next ten years. However, typically there is an emphasis on planning needs for the next two to three years.

Project specific planning

TNSPs also carry out project specific planning that relates to a particular investment need and culminates in a particular investment decision. In the NEM there is a separate and distinct process for individual investment decisions, specifically the application of either:

- the Regulatory Investment Test for Transmission (RIT-T), which is applied for all augmentation investments greater than $6 million in value; and
- non RIT-T assessments, where all other assets (for example replacement assets or those less than $6 million in value) must be planned at least cost over the life of the investment.

25 This is required of AEMO under clause 3.13.3(q) of the Rules.

Investment decisions are guided by cost-benefit assessments to identify the investment option that has the highest net benefits.

Last resort planning power

Under the Rules, the AEMC may exercise the last resort planning power, which allows it to direct registered participants to apply the RIT-T to potential transmission projects if they are likely to be cost effective in relieving projected constraints in respect of national transmission flow paths that connect NEM regions. The Commission reports annually on the last resort planning power. To date, it has not identified any gaps in relation to inter-regional transmission planning that would require a direction to a TNSP to undertake a RIT-T.

1.3 Rationale for the rule change request

The COAG Energy Council's rule change request is largely based on the recommendations made by the AEMC in the Transmission Frameworks Review. These recommendations, and a detailed description of the findings on which they are based, can be found in the consultation paper that was published on this rule change request, and in the Transmission Frameworks Review final report itself.[26]

1.3.1 Connections

In relation to connections, the COAG Energy Council considers that there is significant ambiguity in the Rules regarding the provision of assets forming part of the shared network that are required as an interface with a connection.

The COAG Energy Council refers to the AEMC's findings in the Transmission Frameworks Review, which identified a lack of clarity in the Rules in terms of what connection services actually entail; specifically, the assets involved and where the "connection point" (or agreed point of supply) exists in a practical sense. The location of the connection point can affect which part of the services provided by the TNSP in relation to a connection are treated as negotiated transmission services and which are considered to be non-regulated transmission services. The current arrangements are open to TNSP interpretation and discretion about which services they provide and how they are regulated.

The COAG Energy Council also agrees with the AEMC's recommendations in the Transmission Frameworks Review that the negotiating framework does not provide sufficient protection for connecting parties in light of TNSP's negotiating power, which is considered to lead to inefficient outcomes in terms of costs and time taken to connect. The existing principles in the Rules are focused on cost and prices issues and do not adequately cover a number of the issues that are the sources of disagreement in

26 See http://www.aemc.gov.au/Rule-Changes/Transmission-Connection-and-Planning-Arrangements; http://www.aemc.gov.au/Markets-Reviews-Advice/Transmission-Frameworks-Review

connection negotiations, for example perceived over-specification of technical requirements, timeliness and risk allocation.

1.3.2 Planning

The COAG Energy Council cites the AEMC's findings in the Transmission Frameworks Review, which state that some aspects of transmission planning could be improved to better reflect the needs of market participants and the intention of the market, and to promote more efficient transmission investment in the NEM. Specifically, the AEMC noted that:

- the Rules do not explicitly allow for TNSPs to fund investments in a different region to meet an identified need in the region in which it operates. As a result TNSPs may have little or no incentive to consider options in other regions in determining their optimal investment;
- the Rules do not require TNSPs to formally comment on the National Transmission Network Development Plan; and
- the Rules do not require TNSPs to consider the consistency of their Annual Planning Reports with the National Transmission Network Development Plan and other TNSPs' Annual Planning Reports and so TNSPs may adopt different approaches when presenting the outcomes of their annual planning.

1.4 Solution proposed in the rule change request

1.4.1 Connections

The rule change request proposes the following amendments to the Rules to address the issues with transmission connections identified above:

- clarify the definitions for connection assets, connection services and service classifications by introducing two new categories of those assets into the Rules. This would make a clear distinction between services provided by assets that form part of the shared network ("identified user shared network assets") and those services provided by assets used exclusively by the connecting party or parties ("dedicated transmission connection assets");
- enhance and promote contestability in the connection arrangements, while making it clear that TNSPs are accountable for outcomes on the shared network;
- automatically exempt identified user shared network assets from regulation under Chapter 5 and 6A of the Rules, but subject to them being operated, controlled and maintained by the local TNSP;
- automatically exempt dedicated connection assets from regulation under Chapter 5 and 6A of the Rules, but on the condition that third party access be allowed on reasonable terms.

- provide for a mechanism to grant access to dedicated connection assets, and to transition these assets to the shared network if appropriate;
- establish a single set of negotiating principles, contained in the Rules, that apply as a uniform framework to all transmission connections covered under Chapter 5 of the Rules;
- require TNSPs to increase the level of transparency relating to the provision of negotiated transmission services; and
- establish a framework for the nomination of appropriate independent engineering experts who may provide independent advice on the appropriate technical specifications for a particular connection asset, including clarifying the dispute resolution process.

1.4.2 Planning

The rule change request proposes the following amendments to the Rules to address the issues with transmission planning identified above:

- promote the identification and implementation of network investment options, both within and outside a particular region, by introducing:
  - a requirement on TNSPs to consider whether an option in another jurisdiction may also meet their investment needs when preparing their Annual Planning Reports;
  - a requirement on TNSPs to consult with each other on the potential for an inter-regional investment to deliver market and reliability benefits;
  - a requirement to specifically consider investments in other regions as a credible option to meet an identified need in their own network when undertaking a RIT-T; and
  - clarifications to the Rules to ensure that investments in other regions to meet identified needs in a different region are treated as regulated investments;
- introduce a requirement for AEMO to establish a working group consisting of TNSPs to provide input into the development of the National Transmission Network Development Plan; and
- introduce a uniform approach to Annual Planning Reports by providing minimum requirements for the content of Annual Planning Reports and requiring that AEMO report on the consistency of Annual Planning Reports in the National Transmission Network Development Plan.[27]

27 The rule change request proposes that these rules apply to the jurisdictional planning body in each jurisdiction.

1.4.3 Proposed arrangements for declared network jurisdictions

The COAG Energy Council notes that transmission connection and planning arrangements are different in those jurisdictions where AEMO is authorised to exercise its declared network functions.[28] The COAG Energy Council also considers that many of the requirements that would be imposed on TNSPs under the proposed Rule would not be necessary to impose on AEMO because it does not face the same commercial incentives that TNSPs who own, plan, operate and invest in transmission infrastructure do.

The rule change request therefore seeks to isolate most of the proposed rule changes from any jurisdiction where AEMO is authorised to exercise its declared network functions. However, the rule change request asks the AEMC to provide advice on:

- where the changes cannot be adopted in jurisdictions for which AEMO is authorised to exercise its declared network functions and should not apply at all; and

- where the changes could be adopted, but with some modification.[29].

Chapter 6 sets out the Commission's consideration of, and advice on, these issues.

1.5 The rule making process

On 26 November 2015, the Commission published a notice advising of its commencement of the rule making process and consultation in respect of the rule change request.[30] A consultation paper identifying specific issues for consultation was also published. Submissions closed on 28 January 2016. The Commission received 11 submissions to the consultation paper.

On 3 March 2016, the Commission published a notice under section 107 of the NEL advising that the time for making a draft rule determination on the rule change request has been extended to 24 November 2016. The AEMC determined that an extension was necessary due to the complexity and broad scope of the issues raised by the rule change request, affecting many areas of the Rules. The extended timeline has enabled the AEMC to conduct additional stakeholder consultation on this rule change request, including through:

- two stakeholder workshops;

- the publication of a discussion paper;

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28 See chapter 6 for a detailed explanation of AEMO's declared network functions and the corresponding impact on arrangements to connect to the transmission network in declared network jurisdictions.

29 COAG Energy Council, Transmission Connection and Planning Arrangements, rule change request, July 2015, p. 21.

30 This notice was published under s. 95 of the NEL.

- a public forum on the discussion paper; and
- one on one meetings with a large number of stakeholders.

A discussion paper on the connections aspects of the rule change request was published on 26 May 2016. Submissions closed on 30 June 2016. The Commission received 14 submissions to the discussion paper.

The Commission has considered all issues raised by stakeholders in submissions. Issues raised in submissions are discussed and responded to throughout this draft rule determination. Issues that are not addressed in the body and appendices of this document are set out and addressed in appendix G.

The rule change timeline is set out in Table 1.2.

Table 1.2 Rule change timeline

Milestone	Date
Publication of consultation paper	26 November 2015
Close of submissions on consultation paper	28 January 2015
Stakeholder workshop (connections)	9 March 2016
Stakeholder workshop (planning)	21 April 2016
Publication of discussion paper	26 May 2016
Public forum on discussion paper	16 June 2016
Close of submissions on discussion paper	30 June 2016
Publication of draft rule determination	24 November 2016
Stakeholder meetings	December 2016 - January 2017
Publication of staff paper on transitional arrangements	12 January 2017
Close of submissions on draft rule determination	27 January 2017
Close of submissions on staff paper on transitional arrangements	10 February 2017
Publication of final rule determination	9 March 2017

1.6 Consultation on draft rule determination

The Commission invites submissions on this draft rule determination, including the more preferable draft rule, by 27 January 2017.

Any person or body may request that the Commission hold a hearing in relation to the draft rule determination. Any request for a hearing must be made in writing and must be received by the Commission no later than 26 January 2017.

Submissions and requests for a hearing should quote project number ERC0192 and may be lodged online at www.aemc.gov.au or by mail to:

Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

If any stakeholder wants to discuss aspects of this draft determination with the Commission, please do not hesitate to contact Claire Richards, (02) 8296 7878, to request a meeting.

1.7 Structure of draft rule determination

This draft rule determination addresses both the connections and planning aspects of the rule change request. It is structured as follows:

- Chapter 2 sets out the Commission's draft rule determination, including its assessment framework and summary of reasons for making the draft Rule.
- Appendix A sets out the relevant legal requirements under the NEL for the AEMC to make this draft rule determination.
- Part A: Connections
  - Chapter 3 describes the Commission's detailed assessment framework for the connections aspects of the rule change request.
  - Chapter 4 provides an overview of the draft Rule in respect of connections.
  - Chapter 5 describes the Commission's proposed transitional arrangements.
  - Chapter 6 sets out the Commission's views on the application of the draft Rule in declared network jurisdictions.
  - Appendices B through F detail the Commission's analysis and draft Rule in respect of connections.
  - Appendix G provides the Commission's response to stakeholder comments that are not addressed in appendices B through E.
- Part B: Planning
  - Chapter 7 provides an overview of the draft Rule and sets out the Commission's analysis and draft Rule in respect of planning.
  - Appendix H provides the Commission's response to stakeholder comments that are not addressed in Chapter 7.

2 Draft rule determination

2.1 The Commission's draft rule determination

The Commission's draft rule determination is to make a more preferable draft Rule. The more preferable draft Rule addresses the intent of the COAG Energy Council's rule change request by clarifying aspects of the existing Rules and introducing new provisions to set out a comprehensive, consistent and coherent transmission connection and planning framework.

The Commission's reasons for making this draft determination are set out in section 2.4 and in more detail in the relevant chapters and appendices.

This chapter outlines:

- the rule making test for changes to the Rules;
- the more preferable rule making test;
- the assessment framework for considering the rule change request; and
- the Commission's consideration of the more preferable draft rule against the national electricity objective.

Further information on the legal requirements for making this draft rule determination is set out in appendix A.

2.2 Rule making test

2.2.1 Achieving the national electricity objective

The Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the national electricity objective (NEO).[31] This is the decision making framework that the Commission must apply.

The NEO is:[32]

> "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:
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system."

31 Section 88 of the NEL.

32 Section 7 of the NEL.

The framework used for assessing whether the proposed rule will, or is likely to, contribute to the achievement of the NEO is set out in section 2.3.

The Commission has also had regard to the form of regulation factors,[33] with these considerations discussed further in appendix A.

2.2.2 Making a more preferable rule

Under s. 91A of the NEL, the Commission may make a rule that is different (including materially different) to a proposed rule (a more preferable rule) if it is satisfied that, having regard to the issue or issues raised in the rule change request, the more preferable rule will or is likely to better contribute to the achievement of the NEO.

Using the assessment framework set out in section 2.3, the Commission has determined that the more preferable draft rule is likely to better contribute to the achievement of the NEO than the proposed rule. The reasons for this are set out in section 2.4.

2.2.3 Northern Territory legislative considerations

From 1 July 2016, the Commission assumed rule making responsibility for parts of the National Electricity Rules adopted by the Northern Territory.[34] Some aspects of the proposed Rule relate to parts of the Rules that apply in the Northern Territory,[35] the Commission is required to assess the proposed Rule against additional elements required by the Northern Territory legislation.[36]

The *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015* allows for an expanded definition of the national electricity system in the context of the application of the NEO to Rules made in respect of the Northern Territory. The Commission must regard the reference in the NEO to the "national electricity system" as a reference to whichever of the following the Commission considers appropriate in the circumstances having regard to the nature, scope or operation of the proposed rule:

(a) the national electricity system;

(b) one or more, or all, of the local electricity systems;

(c) all the electricity systems referred to above.

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33 NEL, Part 1, s. 7A.

34 See http://www.aemc.gov.au/Energy-Rules/National-electricity-rules/National-Electricity-Rules-(Northern-Territory) for details about parts of the Rules adopted by the Northern Territory

35 The draft Rule amends Chapter 10 of the Rules and makes minor amendments to Chapter 6 which applies in the Northern Territory. The other amendments made in the draft Rule are to parts of the Rules that do not apply in the Northern Territory.

36 *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015.*

For this rule change, the Commission will regard the reference to the "national electricity system" as a reference to the "national electricity system" and all of the local electricity systems.

The *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015* also provides the Commission with the ability to make a differential Rule that varies in its terms between the national electricity system and the Northern Territory's local electricity system. A differential rule is a Rule that:

(a) varies in its term as between -

  (i) the national electricity system; and

  (ii) one or more, or all, of the local electricity systems; or

(b) does not have effect with respect to one or more of those systems,

but is not a jurisdictional derogation, participant derogation or Rule that has effect with respect to an adoptive jurisdiction for the purpose of s. 91(8) of the NEL.

The Commission has considered whether a differential Rule is required for the Northern Territory electricity service providers and concluded that it is not required in this instance. This is discussed further in appendix A.

2.3 Assessment framework

This section sets out how the Commission assessed whether the proposed rule will, or is likely to, contribute to the achievement of the NEO. This assessment framework is consistent with that set out in chapter 4 of the consultation paper on this rule change request.[37]

The rule change request seeks to amend those aspects of the Rules that relate to transmission connection and planning. The Commission has developed an assessment framework to address this broad scope of issues.

In considering the rule change request, the AEMC has assessed whether the proposed changes would:

- encourage efficient investment in, and operation of, electricity services;
- provide energy services to consumers at an efficient cost while supporting the reliability, safety and security of the transmission network; and
- promote the provision of information in order to incentivise efficient transmission connection and planning arrangements.

Each of these considerations is set out in detail below.

2.3.1 Efficient investment in, and operation of, electricity services

Connecting parties should be able to effectively negotiate efficient outcomes when seeking a connection to the transmission network. These negotiations will result in certain decisions being made, including decisions to invest in particular transmission equipment and decisions about the ongoing maintenance and operation of that equipment.

Connecting parties' objective is to negotiate with the TNSP for the most efficient provision of services to enable their connection to the transmission network, while meeting their specified requirements. Competition in the provision of these services, where appropriate, could contribute to more efficient investment in and operation of these services. Competition should give connecting parties greater ability to manage costs and timing, as well as placing competitive pressure on TNSPs to improve their service offerings.

As inefficiencies in the connection process (e.g. a delay) may be ultimately borne by consumers, changes that would provide incentives for the timely and efficient investment in, and operation of, the services needed to connect to the shared transmission network would be in the long-term interests of consumers.

This would also apply when considering the planning of the shared transmission network. Here, the most efficient development occurs when the TNSP plans to deliver projects that maximise net benefits, being the value of higher reliability and system security less the cost of the project. For this to occur, TNSPs should have sufficient information and incentives to effectively trade off the cost of augmenting and replacing the network against contracting for demand side options, with the value to generators and consumers of relieving congestion and maintaining reliability. This should also include information on investments in other regions that could help maximise net benefits in a different region.

2.3.2 Allowing efficient costs, while preserving system security, safety and reliability

Connecting parties should be able to connect to the transmission network at an efficient price with an agreed level of service and quality in a timely manner. However, system security, safety and reliability should be taken as 'givens' - that is, they are outcomes that should not be compromised by a party's connection to the transmission network. An effective connections regime will therefore make sure that arrangements can be put in place to support system security, safety and reliability, in accordance with the Rules and jurisdictional electricity legislation, while enabling connecting parties to connect at efficient cost.

It is paramount that AEMO and TNSPs have the ability to maintain power system security within a safe operating state. Doing so reduces the potential for damage to

37 See http://www.aemc.gov.au/Rule-Changes/Transmission-Connection-and-Planning-Arrangements

assets and human harm. Therefore, there should be clear responsibility for the operation, control and maintenance of the shared transmission network. This includes those assets that are required to facilitate a connection, but which form part of the shared transmission network, since these assets provide services to end-use customers as well as the connecting party and the way in which those assets function can affect system safety, security and reliability.

Increased competition in the provision of services required to facilitate a connection must, therefore, be considerate of the need to maintain clear accountability for outcomes on the shared network.

2.3.3 Transparency and predictability

The arrangements for connecting to the transmission network, and planning for the transmission network, should be clear, consistent and understandable to all participants and interested stakeholders. Clarifying these roles will, in turn, clarify accountability for the safe and secure operation of the transmission network. This should support investor confidence, which should result in benefits to consumers through lower investment costs.

The regulatory arrangements should promote the provision of relevant information. Readily available information (either on planning or connections) can support effective decision-making and the delivery of efficient outcomes. For example, in relation to planning, increased information sharing could contribute to more coordination between TNSPs, and so more efficient investment across the transmission network as a whole. Standardisation of the information provided in Annual Planning Reports should make it easier to examine plans and facilitate comparative analysis, resulting in more informed feedback from interested parties.

In relation to connections, parties seeking a connection need access to clear, timely and accurate information to enable them to make decisions, negotiate in a more informed manner and address the issue of asymmetric power between TNSPs and connecting parties. To create confidence in the transmission connection process and encourage investment, the arrangements must be predictable and should be consistent across locations and between connecting TNSPs.

Further, connection arrangements should be as simple as is practicable to achieve their intended objectives. Where regulation is complex or ambiguous it imposes unnecessary risks and increased costs for businesses. These costs may be passed through to consumers in the form of higher prices.

2.4 Summary of reasons

The more preferable draft Rule made by the Commission is attached to and published with this draft Rule determination. The key features of the more preferable draft Rule are summarised below.

With respect to transmission connections, the more preferable draft Rule:

- clarifies many existing aspects of the connection process and the framework for economic regulation of services required to connect generators, loads and MNSPs to the shared transmission network to remove ambiguity and scope for interpretation;

- clarifies that two types of assets provide the services required to connect to the shared transmission network by introducing the terms dedicated connection asset and identified user shared asset, and establishes a clear distinction between the way in which services provided by means of the two types of assets are regulated and the obligations of the parties who own, control and operate them;

- introduces contestability for the detailed design, construction and ownership of identified user shared assets - where these assets or components of these assets meet certain criteria to be classified as contestable - and defines these services as non-regulated transmission services that can be provided by any party on commercial terms;

- maintains that the Primary TNSP[38] remains accountable for outcomes on its network, even if parts of it (i.e. identified user shared assets) are designed, built and owned by other parties, by requiring such parties to enter into a network operating agreement with the Primary TNSP to give effect to such an outcome;[39]

- provides a process by which an independent engineer can be engaged to provide advice on a technical issue related to a connection if either the connecting party or the TNSP requests it;

- strengthens the principles that underpin negotiations for services required to connect to the shared transmission network and removes the requirement for TNSPs to develop individual negotiated transmission service criteria and negotiating frameworks for approval by the AER;

- enhances the transparency of the connection process by requiring TNSPs to publish certain information about the specifics of connecting to their network on their websites and provide certain information to the connection applicant on request;

- clarifies the process that applies to the resolution of disputes raised in relation to transmission connections;

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38 Primary TNSP is a new term defined in the draft Rule as "The Transmission Network Service Provider who operates the largest transmission network in each participating jurisdiction (other than an adoptive jurisdiction)." The draft determination uses the term incumbent TNSP to refer to this party under current arrangements, and the term Primary TNSP when referring to the arrangements for this party under the draft Rule.

39 Or where the third party IUSA owner has full TNSP registration, and so can own the assets, the fact that it still needs to obtain operations and maintenance services from the Primary TNSP as a negotiated transmission service.

- clarifies that all services provided for new dedicated connection assets, including design, construction, ownership, operation and maintenance, are non-regulated transmission services and can be provided by any party on commercial terms;

- requires parties who own, operate or control a dedicated connection asset to register with AEMO, or be exempted from the requirement to register, and to classify their dedicated connection assets as either small (under 30km total route length) or large (over 30km total route length);

- sets up a framework by which parties can negotiate access to the services provided by means of a large dedicated connection asset;

- provides clarity about the point at which a large dedicated connection asset is considered to be providing shared transmission services rather than connection services, for example if a DNSP connects to that asset.

With respect to transmission planning, the more preferable draft rule:

- requires TNSPs to include certain additional information in its Annual Planning Report on key changes since the last Annual Planning Report, the forecasting methodology used for load forecasts and detailed information regarding network constraints;

- requires the AER to develop a guideline to support consistency across Annual Planning Reports; and

- requires TNSPs to undertake joint planning with other TNSPs where there is the potential for investments in other transmission networks to deliver market and reliability benefits in their own network.[40]

Further detail on the connections aspects of the draft Rule can be found in chapter 4 and the relevant appendices of this draft determination. Further detail on the planning aspects of the draft Rule can be found in chapter 7.

The Commission is of the view that the scope of the rule change request does not allow the AEMC to consider the application of these Rules in jurisdictions where AEMO is authorised to exercise declared network functions, i.e. Victoria. This is discussed further in chapter 6.

Having regard to the issues raised in the rule change request and during consultation, the Commission is satisfied that the more preferable draft Rule will, or is likely to, better contribute to the achievement of the NEO than the proposed rule.

With respect to connections, the more preferable draft Rule largely reflects the COAG Energy Council's proposal. The key features of the more preferable draft Rule, as summarised above, are consistent with the intention of the proposals put forward in

40 Under the draft Rule, these obligations are placed on the jurisdictional planning bodies, i.e. the Primary TNSP in each jurisdiction and AEMO in Victoria.

the rule change request. However, the more preferable draft Rule contains a greater level of detail to give effect to these proposals, while retaining the COAG Energy Council's policy intent.

More detailed analysis of the reasons for making the more preferable draft Rule as it relates to connections, and why it better meets the NEO than the proposed Rule, can be found in part A of this draft determination.

With respect to transmission planning, the more preferable draft Rule builds on the COAG Energy Council's proposals on the content and consistency of Annual Planning Reports, and provides more detail on these proposals based on stakeholder input and analysis. On the remaining planning aspects of the rule change request, the Commission considers that the more preferable draft Rule will, or is likely to, better contribute to the achievement of the NEO for the reasons set out below.

- The proposed rule would have introduced a formal requirement for TNSPs to provide input into the National Transmission Network Development Plan. Feedback from stakeholders indicates that the existing process for facilitating input on the National Transmission Network Development Plan is positive and includes a broader range of stakeholders than TNSPs alone. The Commission has concluded that the quality of engagement on the National Transmission Network Development Plan would not be improved under such a proposal. The more preferable draft Rule therefore does not include such a requirement.

- While the more preferable draft Rule requires TNSPs to conduct joint planning with other TNSPs, it does not require TNSPs to explicitly consider investment options in other regions in their Annual Planning Reports or when undertaking a RIT-T, as was proposed in the rule change request. The Commission considers that the more general obligation on TNSPs to conduct joint planning will provide TNSPs with more flexibility about when and how to engage with other TNSPs on planning. This is likely to facilitate more efficient coordination between TNSPs than ad hoc consideration when producing an Annual Planning Report or undertaking a RIT-T. The costs of requiring TNSPs to explicitly consider such options in Annual Planning Reports and RIT-Ts are therefore likely to outweigh the benefits.

- The rule change request proposed that the arrangements for the economic regulation of investments in other regions should be clarified. The Commission considers that the arrangements for economic regulation of investments in one region to provide a benefit in another are linked to the arrangements for inter-regional TUOS. Our preliminary view is that, in order for the costs of investments undertaken in a different region to the region with the identified need to be appropriately allocated, changes to inter-regional TUOS arrangements may be required. However, the Commission considers that inter-regional TUOS arrangements are out of the scope of this rule change request. The Commission has therefore not made any amendments to the arrangements for economic regulation of such investments.

More detailed analysis of the reasons for making the more preferable draft Rule as it relates to planning can be found in part B of this draft determination.

The draft Rule does not contain savings and transitional provisions. A paper outlining a complete savings and transitional proposal, along with draft Rules relating to this component, will be published for comment in mid-January 2017.

2.5 Strategic priority

This rule change request relates to the AEMC's 'markets and network' strategic priority. The draft Rule establishes market and regulatory arrangements that provide an environment for business evolution and efficient investment in transmission connection services. The draft rule also introduces new arrangements to facilitate better engagement and increased coordination on planning for the transmission network to facilitate efficient investment in transmission infrastructure.

7 Planning

The section concerns the planning aspect of the rule change request. The proposed changes to the planning arrangements can be split into three elements. These are:

1. Consideration of cross-regional investment options.

2. TNSP involvement in the National Transmission Network Development Plan (NTNDP).

3. Consistency of Annual Planning Reports (APRs).

This section will discuss each of the elements in turn, provide a summary of stakeholder feedback and outline the Commission's analysis and conclusions.

7.1 Consideration of cross regional options

7.1.1 Background

The Transmission Frameworks Review final report found that the current regulatory framework does not explicitly allow TNSPs to fund investments in a different region to meet an identified need in the region in which it operates i.e. a "cross-regional" option. As a result, TNSPs have little or no incentive to consider such "cross-regional" investment options in other regions in determining their optimal investment. This finding motivated the proposed rule change to promote the identification and implementation of network investments that cross regional boundaries.

7.1.2 COAG Energy Council's view

The proposed changes to the Rules to facilitate cross-regional investments are related to two distinct parts of the Rules, the economic regulation of transmission investments, under Chapter 6A of the Rules and the transmission planning arrangements under Chapter 5 of the Rules.

The COAG Energy Council stated in the rule change proposal that it is supportive of a "nationally coordinated planning approach that ensures both intra-regional and inter-regional options would be considered in determining the optimal investment."[83]

To promote the identification and implementation of network investment options that cross regional boundaries, the rule change proposed to amend the planning process to introduce new requirements on TNSPs to:

- consider whether an option in another jurisdiction may also meet their investment needs in preparing their Annual Planning Report;

83 COAG Energy Council, Transmission Connection and Planning Arrangements, rule change request, July 2015, p. 18.

- consult with other transmission businesses on the potential for inter-regional investment to deliver market and reliability benefits; and

- specifically consider investment in other regions as a credible option when undertaking a regulatory test for transmission.

An additional aspect of this proposal to consider was how viable cross-regional investment options should be identified and incorporated into the transmission planning process. This includes requirements that an analysis of cross-regional options be reported on in Annual Planning Reports and RIT-Ts. The rule change request suggested that AEMO (as national transmission planner) should develop guidelines on assessing whether an investment need could be met by an investment in another region.

With respect to the economic regulation of cross regional investments, the rule change request noted that, as part of the Transmission Frameworks Review, "[t]he Commission also recommended that the Rules should be clarified to ensure that cross-regional investments are treated as regulated investments". The rule change request does not explicitly outline how the arrangements for the economic regulation of cross-regional investments should be clarified.

The intention of the rule change proposals regarding the consideration of cross regional options is that TNSPs are required to identify, consider, and report on potential cross-regional investments and, in the event that such an investment is shown to be efficient, that there are no regulatory obstacles to the investment going ahead. In short:

> "The [COAG Energy] Council supports the provision of least cost investment to deliver market and reliability benefits and that, in a national market, exploration of inter-regional investment as an alternative to intra-regional investment should be explicitly considered in network planning and regulatory investment testing processes."[84]

7.1.3 Stakeholder views

Submissions to the consultation paper agreed that there may be efficiency benefits to the consideration and selection of cross-regional investment options when it would be the most viable option to meet a network need. The ENA stated that because of these potential efficiency gains TNSPs already actively undertake joint planning, when appropriate, to identify where solutions in another region may be suitable to address an identified local need.[85]

The ENA did not consider it necessary that AEMO develop guidelines to assess how an investment need in one region can be met by investment in another region.

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84 COAG Energy Council, Transmission Connection and Planning Arrangements, rule change request, July 2015, p. 19.

85 ENA, submission on consultation paper, p. 18.

Requirements to consider cross-regional investments in Annual Planning Reports and subsequent RIT-Ts and as part of the National Transmission Network Development Plan were considered to be sufficient to improve transparency and promote coordinated planning.[86]

The issue of the economic regulation and cost allocation of cross-regional investments was also raised by the ENA in their submission. Where joint planning aligns with the revenue determination process, the ENA consider that the economic regulatory framework will support the implementation of cross-regional investment options. Additional arrangements may be required if a cross-regional investment has not been forecast in or included in the general revenue allowance for a TNSP. This would arise because the obligation is on the TNSP with the originating need to investigate the technical and economic benefits of the cross-regional investment and not the TNSP that will incur the expenditure. Under current arrangements, the TNSP would have to bear the financing cost of the investment until the end of the regulatory period and would also incur a penalty under the capital expenditure sharing scheme.[87] The ENA considered that the Rules would need to be amended to address this funding gap and also to remove the penalty under the capital expenditure sharing scheme.[88]

Finally, the ENA noted that the new arrangements for inter-regional transmission charging should assist in allowing that those customers that benefit from the cross-regional investment contribute to its cost over time.[89]

7.1.4 Commission's analysis

Joint planning requirements

In a national market of interconnected jurisdictions like the NEM, a wider perspective in the transmission planning process is important. The Commission considers that requiring cooperation between TNSPs in the Rules is appropriate. Incorporating the perspective of other TNSPs through joint planning would help identify potentially efficient investment opportunities that would increase the efficiency of the transmission system across the NEM as a whole.

The draft Rule specifies that joint planning should occur under certain circumstances, that is, where a possible credible option to address a constraint in a transmission network is an augmentation to the transmission network of another TNSP, and the constraint is not already being considered in other processes under the Rules.[90] The draft Rule further requires that TNSPs should provide detail of this joint planning on

86 ENA, submission on consultation paper, p. 18.

87 The Capital Expenditure Sharing Scheme is an incentive scheme run by the AER. It provides network businesses with the same reward for an efficiency saving and the same penalty for an efficiency loss, regardless of what year of the regulatory period they make the saving or loss in.

88 ENA, submission on consultation paper, p. 18.

89 Ibid., p. 19.

90 Clause 5.14.3 of the draft Rule.

such potential cross-regional projects or investments, in the event that such joint planning took place, in their Annual Planning Reports.[91]

The Rules currently include requirements for DNSP-DNSP and TNSP-DNSP joint planning. There are currently no requirements in the Rules for TNSPs to conduct joint planning with other TNSPs. The draft Rule is therefore consistent with other joint planning requirements that are already present in the Rules.

AEMO is the National Transmission Planner (NTP) and conducts long-term strategic planning across the NEM. This planning process results in the publication of the National Transmission Network Development Plan, which provides a holistic, independent and strategic vision of the transmission network over the next 20 years. The Commission understands that TNSPs do engage with AEMO in the process for developing the National Transmission Network Development Plan. The joint planning requirements in the draft Rule relate to shorter-term investment-specific planning, that may identify a cross-regional investment as a potentially viable option to meet an identified need.

The draft rule makes it clear that the TNSP who should be responsible for this joint planning in Victoria is AEMO.[92] This is consistent with its current role in preparing the Annual Planning Reports for this jurisdiction.

The draft Rule does not to require AEMO to produce guidelines on what cross-regional investments are, since we consider that TNSPs have a good understanding of what these investments are. Further, we consider that requiring AEMO to produce guidelines on this aspect could create a conflict between its role in making guidelines and its role in undertaking joint planning on these investments as the Victorian TNSP.

How cross-regional investments could be accommodated under the current regulatory framework

The Commission has also considered how cross-regional investments could be accommodated under the current economic regulatory framework. One potential route identified is to treat the cross-regional option, which is defined as an investment in a particular region to meet an identified need in another region, as a credible option provided by another, TNSP through any RIT-T process that is undertaken.

For the purposes of this discussion of the economic regulation of cross regional options, the term "home" TNSP refers to the TNSP with the originating need for investment who has identified an investment in another region as the most efficient option to meet its need. The "other" region TNSP refers to the TNSP in (most likely) a neighbouring jurisdiction where the investment to meet the need of the "home" TNSP will physically take place.

91 Clause 5.12.2(c)(10) of the draft Rule.

92 Clause 5.1A.1(f) of the draft Rule.

Under the current regulatory framework, the Commission considers that the investment could be treated in the following way:

- The “home” TNSP would foresee an identified need in its jurisdiction.
- Through joint planning with its neighbouring ("other") TNSP the "home" TNSP could identify that its identified need could be met by the "other" TNSP.
- In order to address the identified need, the “home” TNSP would run a RIT-T process on the identified need and potential options to meet that identified need.
- The “other” TNSP would signal through the RIT-T process that it could meet the identified need with an investment in its region – in terms of the RIT-T this would be considered as a credible option, provided by the "other" TNSP.
- As part of the RIT-T process, the “other” TNSP would provide a value of its option to the “home” TNSP, with this option being assessed against other credible options through the RIT-T process.
- If the cross-regional investment option was chosen as the option that maximised the net market benefit, the “other” TNSP would have to undertake the investment. The "other" TNSP would enter into a contract with the “home” TNSP. This contract would set out the obligations that the "other" TNSP would have to provide the service and how they would be paid for this service.
- The “other” TNSP would undertake this cross-regional investment as an unregulated transmission service to the "home" TNSP. The investment would therefore be funded through contract payments made by the “home” TNSP, and paid for out of the “home” TNSP’s operating expenditure. The investment would not be included in either the "home" or "other" TNSP's regulated asset base (RAB).
- It could be the case that the cross-regional investment, although originally motivated by an identified need in the "home" region, could, over time, start to provide prescribed transmission services within the "other" TNSP's network. If this were to occur, the “other” TNSP could transition some of the value of the asset into its RAB through the existing provisions in the Rules.[93] The amount of the asset that would be included in the "other" region TNSP's RAB would correspond to the value of the asset that is providing prescribed transmission services in the "other" region's network. The inclusion of this portion of the asset into the "other" TNSP's RAB would mean that the value of the services provided to the "other" region consumers are correctly apportioned and paid for by these consumers.

The Commission therefore considers that cross-regional investments can be accommodated under the current framework for economic regulation. The Commission is interested in stakeholder views on this issue, specifically if stakeholders

93 Clause 6A.19.2 of the Rules.

see any barriers to such cross-regional investments occurring, under the process described above.

Inter-regional transmission charging

The ENA, in its submission to the consultation paper, stated that the current arrangements for inter-regional transmission charging could assist in allowing the customers who benefit from a cross-regional investment contribute to its cost over time. The Commission has considered the arrangements for inter-regional transmission charging in the context of this rule change request. This is the subject of this section.

The current inter-regional transmission charging arrangements introduced a mechanism for TNSPs to monetise the benefits to other regions that occur as a result of investments they have made. These new charging arrangements were introduced to reflect the interconnected nature of the NEM and to provide efficient price signals for TNSPs to undertake investments where the benefits may extend to other regions.[94]

The inter-regional element of transmission charging is calculated as a modified load export charge. This charge reflects the costs of transmission assets located in the neighbouring region used for supporting electricity flows from its own region. The charge is calculated in a consistent manner across regions and is added to or subtracted from the locational component of the TNSP's TUOS charges.[95] That is, there is no modification to the non-locational component of the TNSP's TUOS charges in relation to inter-regional charging.

The Commission, in considering how the risks would be allocated in relation to these cross-regional investments as a result of changing the economic regulation arrangements, have also considered the inter-regional transmission charging arrangements since these are relevant to "who pays" for these investments. In particular, we are of the view that the current method does not adequately allocate the costs to the consumers who benefit from these cross-regional investments.

Cross-regional investments could, under current arrangements, transfer some of the risk of the investment from the "home" region TNSP's customers to that of the "other" region. This would occur in circumstances where the contract payments between the "other" and "home" TNSPs do not cover the full cost of the investment because of expected future inter-regional TUOS payments. Transmission investments may be identified and justified based on specific expectations as to what the future will look like, based on the forecasts available at the time. These predictions of the future, for example expected demand growth, may not come to pass. In the case of a

94 The new Rules were introduced in 2013 and introduced a new inter-regional transmission charge for consumers. The inter-regional transmission charge commenced on 1 July 2015 and is levied between transmission businesses in neighbouring regions. Transmission businesses will recover this charge from individual consumers through the locational component of their regulated (prescribed) TUOS services.

95 Whether the inter-regional charge is positive or negative depends on whether the region is a net importer or exporter of electricity.

cross-regional investment, if the investment in the "other" region turns out to be unnecessary or oversized some of the cost is borne by the "other" region's customers. This result is not consistent with the principles of risk allocation that underpin the design of the NEM as the risks are allocated and borne by a party who does not benefit from the investment and has no control over the investment decision.

This is because, if demand does not grow as expected, no energy, or less energy than expected, will flow across the border. As a result, the "other" TNSP will receive no (or less-than-expected) inter-regional TUOS payments as a result of the investment. In reality, this represents a transfer of demand risk from the "home" TNSP to the "other" TNSP's customers.

The Commission considers that, given the above analysis of the current arrangements for inter-regional TUOS charging, it would be difficult for a TNSP to justify the economic benefits of a cross-regional investment option, relative to intra-regional options that do not cause any issues with respect to risk allocation. This in itself may pose a barrier to cross-regional investments occurring. The Commission welcomes feedback in this regard.

7.1.5 Conclusions

Joint planning requirements

The Commission considers that there is value in incorporating a wider perspective into the current transmission planning arrangements.

The Commission notes feedback from stakeholders that TNSPs already undertake planning with other TNSPs and DNSPs and encourages this continued coordination. The Commission also requires that TNSPs engage with AEMO in the preparation of the National Transmission Network Development Plan. However, we consider that there is value in requiring joint planning in the specific case where there is the potential for a cross-regional investment to occur to make sure that these investments are captured.

The draft Rule requires TNSPs to undertake joint planning with other TNSPs. The objective of the joint planning obligations is that a TNSP would engage in joint planning with its neighbouring TNSP(s) when there are potential opportunities for cross-regional coordination and investment in order to meet an identified need in its network.

TNSPs are required, under the draft Rule, to provide detail of any joint planning activities in relation to potential cross-regional projects or investments in their Annual Planning Reports.

The Commission has also determined not to include a requirement that TNSPs must consider cross-regional investment options in their Annual Planning Reports or RIT-Ts in the draft Rule. As discussed above, there is limited scope for such cross-regional investments to occur and as such it would not be appropriate to include broad

requirements in the Rules for TNSPs to consider cross-regional investment options in their Annual Planning Reports or RIT-Ts. However, if a TNSP did consider a cross-regional investment option, it would be included and assessed in a RIT-T.

Similarly, the Commission has determined not to include an obligation on AEMO to prepare a guideline on how to assess whether an investment in one region could meet an identified need in another region in the draft Rule.

Economic regulation of cross-regional options

The Commission acknowledges stakeholders' view that there is limited scope for cross-regional investments to occur. The thin, long, low density structure of the Australian transmission network means that there is unlikely to be many practical opportunities to consider cross-regional investments as a viable alternative to an investment option within the TNSP's network. However, the Commission does consider that there are ways for these investments to occur under the current regulatory framework, through operational expenditure, as discussed above. The Commission welcomes stakeholder views and comments on this subject.

7.2 TNSP input into the National Transmission Network Development Plan

7.2.1 Background

In the Final Report of the Transmission Frameworks Review, the Commission found that the current framework does not require that TNSPs formally comment on the National Transmission Network Development Plan. The Commission considered it appropriate that this occur.

The objective of requiring TNSPs to formally comment on the National Transmission Network Development Plan is that the different perspectives of parties involved in transmission planning are appropriately considered and incorporated into the Plan. This process would facilitate a coordination of local and national issues at the outset of the planning process.

As a result of this finding, the Commission recommended that the Rules be amended to establish a transmission working group and to set out the process for that working group to review and provide comments on the National Transmission Network Development Plan during the document development.

The Commission’s understands that AEMO currently seeks TNSP input into the National Transmission Network Development Plan and that a working group, comprising of a wide variety of stakeholders, currently does exist. The proposal to include a formal transmission working group in the Rules was therefore considered to be a formalisation of existing practice.

7.2.2 COAG Energy Council's view

In its rule change request the COAG Energy Council stated that it is supportive of measures that would develop the National Transmission Network Development Plan and make it a more robust and effective planning tool for industry. Specifically, it considered that:

> "more active involvement of transmission businesses would contribute to the development of a [National Transmission Network Development Plan] that reflects information that is currently only readily accessible for transmission businesses."[96]

The rule change request proposed that the Rules be amended to establish a committee, and set out the functions by which that committee would review and provide comments on the National Transmission Network Development Plan during the document's development. The committee would comprise of TNSP representatives from all jurisdictions. The role of the committee would be to comment on, and provide input to, the National Transmission Planner's development and preparation of the National Transmission Network Development Plan.

7.2.3 Stakeholder views

No submissions to the consultation paper were supportive of the proposal to formally introduce a working group of TNSPs to provide input into the National Transmission Network Development Plan. The reasons given were that the process for seeking stakeholder feedback already works well and that the quality of stakeholder engagement with the Plan would not be improved through the introduction of such a requirement.

Further, AEMO did not see the need for a formally prescribed working group to accommodate input from TNSPs in to the national planning exercise. This is because AEMO already has a process for seeking stakeholder feedback on the content of the National Transmission Network Development Plan. The submission added that, although their input is valued, TNSPs are only one of a range of stakeholders that contribute to this process. Other key stakeholders include proponents of non-network alternatives to network upgrades.[97]

The submission from the ENA gave some insight into the current situation with regard to stakeholder involvement in the National Transmission Network Development Plan process. It said that TNSPs are already significantly involved in the process as it is in their interests to make sure that there is consistency between the National Transmission Network Development Plan and their own plans. AEMO seeks feedback on proposals for the forthcoming National Transmission Network Development Plan and planning assumptions. This feedback is further supported by individual AEMO

96 COAG Energy Council, Transmission Connections and Planning Arrangements, rule change request, July 2015, p. 19.

97 AEMO, submission on consultation paper, p. 5.

and TNSP Planning co-ordination meetings. The RIT-T process also provides opportunities for further engagement between TNSPs and AEMO as it includes consultation on scope, methodology and outcomes of the RIT-T assessment.[98]

The ENA submission reflected the opinion expressed by AEMO. Its submission stated that the level and credibility of the input and consultation between TNSPs and AEMO will remain the same irrespective of whether or not arrangements are formalised. The ENA added that the AEMC should be cautious to ensure that formal arrangements do not impose unnecessary costs on parties. The ENA submission further suggested that the AEMC give consideration to an additional requirement that AEMO demonstrates how it considered feedback from TNSPs in developing the National Transmission Network Development Plan. This requirement, the submission says, would provide confidence to stakeholders that AEMO has given proper consideration to all views.[99]

Participants at the stakeholder workshop held on the planning arrangements aspect of this rule change agreed with the positions that were put forward in the submissions to the consultation paper. Stakeholders were satisfied with the process for and level of interaction with the National Transmission Network Development Plan process and there is no need for a formal role for a committee in the Rules. Stakeholders questioned whether adding prescription to the Rules to govern a process that already happens is necessary. Further, stakeholders considered that formal committee could reduce the flexibility that AEMO currently has when consulting, e.g. it could result in AEMO only consulting with a narrow group of stakeholders. Participants from generators and networks said they were comfortable with the level of and process for interaction with the National Transmission Network Development Plan.

7.2.4 Commission's analysis

Jurisdictional planning bodies[100] assist in the preparation of the National Transmission Network Development Plan by providing feedback to AEMO, although this involvement is not explicitly required in the Rules. This involvement is done through participation in consultation conducted by AEMO in preparing the National Transmission Network Development Plan.

The Commission understands that AEMO have been engaged in a process to improve the process of consultation for the National Transmission Network Development Plan. There are two ways in which stakeholders can currently provide input to AEMO on the Plan:

1. through the formal consultation process, as outlined in the Rules; and

2. through the National Transmission Network Development Plan Technical Working Group.

98 ENA, submission on consultation paper, pp. 19-20.

99 Ibid., p. 21.

100 Jurisdictional planning bodies are, in most cases, the local TNSP except in Victoria. AEMO is the jurisdictional planning body in Victoria as part of its declared network functions under the NEL.

Clause 5.20.1 of the Rules currently outlines the requirements on AEMO with respect to the preliminary consultation that must be completed in advance of the publication of the National Transmission Network Development Plan. AEMO must publish a document that outlines the inputs that it proposes to use in the National Transmission Network Development Plan as well as a statement of material issues that will be considered. Under the Rules, AEMO must invite stakeholders be invited to provide written comments on these inputs. This formal consultation is increasingly being used by stakeholders as a method of providing feedback to AEMO on the National Transmission Network Development Plan. In 2015 one written submission to consultation paper on the National Transmission Network Development Plan was received by AEMO. In 2016 the number of written submissions had increased to four.

In addition to the formal, Rules-mandated, consultation it undertakes, AEMO has established the National Transmission Network Development Plan Technical Working Group. This formal working group replaced the informal group that previously existed to provide stakeholder feedback to AEMO in the development of the National Transmission Network Development Plan. The group has a formal terms of reference and includes representatives from AEMO, government officials, TNSPs, generators and other stakeholders. The aim of this group is to facilitate discussion on market modelling and strategic network planning. The outcomes of the technical discussions are used to develop the National Transmission Network Development Plan and deliver as much value as possible for all stakeholders.[101]

Given that there is already a process in place for all stakeholders, including, TNSPs, to provide comments on the National Transmission Network Development Plan, the Commission considers that amending the Rules to establish a formal committee of TNSPs is unnecessary.

7.2.5 Conclusions

The Commission has determined not to make a rule to formalise TNSP input into the development of the National Transmission Network Development Plan. We consider that a rule requiring TNSP involvement in the National Transmission Network Development Plan is not necessary as the current process for incorporating stakeholder comments into the National Transmission Network Development Plan is working well and there is no issue to be resolved through regulatory action:

- There is general satisfaction from all stakeholders, including generators, networks and demand response providers, with AEMO's level of consultation and the process for preparing the National Transmission Network Development Plan.

- AEMO is required under the Rules to engage in consultation in the preparation of the National Transmission Network Development Plan. While there is no explicit requirements on TNSPs to engage with this consultation it is the Commission's understanding that networks do contribute to the process.

101 More information is available on the AEMO website: www.aemo.gov.au

Therefore additional requirements are not necessary so that TNSPs provide input into the National Transmission Network Development Plan.

- The proposed Rule envisages that only TNSPs would be required to participate in the group to provide input into the National Transmission Network Development Plan. In reality, all stakeholders, as well as the Commission, agree that a wider group, including demand response and other providers of potential non-network solutions, should be involved in the National Transmission Network Development Plan. As such, the proposed Rule may actually have the effect of reducing the quality of stakeholder input into the National Transmission Network Development Plan by excluding some parties who may have valuable insights or ideas.

- A regulatory requirement may hinder the progress that is already being made by the industry. Improvements have been made in recent years to the process for incorporating stakeholder feedback into the National Transmission Network Development Plan. This progress has been acknowledged by stakeholders and the Commission understands that AEMO aims to continue to improve the consultation process for the National Transmission Network Development Plan.

- The proposed Rule to require TNSPs to formally engage with the development of the National Transmission Network Development Plan is difficult to justify on a cost-benefit basis. There is general stakeholder agreement that the consultation process for the preparation of the Plan works well as it is. Additional requirements on TNSPs to form a working group would impose costs without any clear benefits in terms of improving the quality of engagement with AEMO in the preparation of the National Transmission Network Development Plan.

7.3 Consistency of TNSP Annual Planning Reports

7.3.1 Background

The rule change request proposed that transmission Annual Planning Reports should be more consistent so that the information presented within them should be easily comparable across jurisdictions.

Currently, the information in Annual Planning Reports is presented differently by TNSP. This is because the current requirements with respect to transmission Annual Planning Reports are not prescriptive and as a result each TNSP has interpreted them differently. The result of this is that although requirements regarding the content of Annual Planning Reports do exist the information provided is not easily comparable across TNSPs.

The Transmission Frameworks Review noted that the comparison of TNSP Annual Planning Reports could be facilitated by including, where possible:

- common project labels and constraint labels between TNSPs; and

- distinction of projects addressing intra- and inter-regional issues.

The Commission notes that since the Transmission Frameworks Review recommendations were published in 2013, the AER has launched a strategic compliance project to engage with TNSPs to help to improve future Annual Planning Reports. As part of this process an "Annual Planning Report improvement plan" was developed by the AER. TNSPs have incorporated the suggested improvements from their improvement plans in their 2016 Annual Planning Reports. The Commission understands that this work was focussed on improving the quality of individual TNSP's Annual Planning Reports, which is a welcome development, but did not attempt to address consistency or comparability across Annual Planning Report documents. This process is discussed in more detail below.

The Commission considers that although the quality of Annual Planning Reports has improved, there is still room for further improvement. In particular, the level of information provided may not be sufficiently detailed for a non-network service provider to identify potential commercial opportunities with the TNSP.

7.3.2 COAG Energy Council's view

This element of the planning arrangements relates specifically to requiring that the information presented by TNSPs is consistent and comparable.

> "The [COAG Energy] Council supports measures to improve the consistency of the information presented in [Annual Planning Reports]; this will increase the transparency of the planning process, facilitate comparative analysis, and ultimately increase the predictability of the investment planning process."[102]

The rule change request included amendments to the Rules to introduce specific, minimum requirements for the information that TNSPs are to include in their Annual Planning Reports. It also included requirements on AEMO, as National Transmission Planner, to report on the consistency of information presented in Annual Planning Reports in the National Transmission Network Development Plan. The proposed rule also contemplates that the AER should have a role in developing guidelines on the consistency of Annual Planning Reports.

The proposed Rule is said to improve the consistency of the transmission planning framework and allow for the more effective development of the transmission network on a national basis rather than within regions.

102 COAG Energy Council, Transmission Connections and Planning Arrangements, rule change request, July 2015, p. 20.

7.3.3 Stakeholder views

Two submissions mentioned that there has already been work undertaken to improve the quality and consistency of Annual Planning Reports. The ENA stated that TNSPs have been working on this issue and that, with the support of the AER, substantial progress has been made.[103] TransGrid's submission commented on the fact that, since the Transmission Frameworks Review, they have actively improved their approach to engagement with prospective connecting parties, including through its Annual Planning Reports and process improvements for connection enquiries.[104]

The ENA considered that consistency across Annual Planning Reports should not mean uniformity and that there is no right way to present information. Consistency should therefore only extend to ensuring that the same type of information is included and that this information is easily identifiable.[105]

Two submissions provided an opinion on the role of the AER in ensuring consistency of Annual Planning Reports. AEMO's submission was not in favour of prescribing minimum requirements but support an approach where the high-level objectives of Annual Planning Reports are set out in the Rules and the AER is responsible for developing and maintaining an Annual Planning Report guideline.[106] The ENA considered that the formal role of the AER should be limited to confirming compliance with the rule requirements.[107]

The stakeholder workshop provided some insights as to how generators and distribution networks use Annual Planning Reports and the information that they value in these documents. In terms of information, stakeholders that use Annual Planning Reports value detailed commentary on constraints and network demand. Many stakeholders also noted that commentary on what has changed since last year's Annual Planning Report, why this change has occurred and the materiality of this change is also absent from current Annual Planning Reports and should be required.

7.3.4 Commission's analysis

The Annual Planning Report is one element of the planning framework as set out in Chapter 5 of the Rules.[108] This framework is intended to promote economically efficient and transparent network planning and investment.

Under the Rules, TNSPs are required to provide information on the state of their network, in the form of their Annual Planning Report. This planning document

103 ENA, submission on consultation paper, p. 21.

104 TransGrid, submission on consultation paper, p. 1.

105 ENA, submission on consultation paper, p. 21.

106 AEMO, submission on consultation paper, p. 5.

107 ENA, submission on consultation paper, p. 21.

108 The other elements of the planning framework include the National Transmission Network Development Plan, the RIT-T and joint planning obligations.

includes a description of emerging network constraints and the potential solutions proposed to address these constraints. The Rules require that the Annual Planning Report also include an outline of opportunities for non-network solutions and provide details of future network investment.

Developments and improvements in TNSP Annual Planning Reports

In response to an AEMO request to provide feedback on the Victorian Annual Planning Report[109] the AER examined the most recent Annual Planning Reports and found that all TNSPs' Annual Planning Reports failed to completely satisfy the requirements in the Rules in one way or another. As a result, a strategic compliance project was launched by the AER to comply with the transmission businesses and explore improvements that could be made to transmission Annual Planning Reports in order to meet stakeholder expectations comply with the Rules requirements.[110]

As part of this work, a workshop with representatives from TNSPs was held in March 2014. The aim of this workshop was to understand how TNSPs approach the Annual Planning Report process and to build consensus on what improvements could be made to the Annual Planning Report. As a result of this workshop TNSPs agreed to develop Annual Planning Report improvements plans and to incorporate the identified improvements in all future published Annual Planning Reports.

Subsequent to the workshop, meetings were held with individual TNSPs and the AER. In these meetings, the AER outlined its specific concerns with respect to the Annual Planning Report of each individual transmission business. These specific concerns, highlighted by the AER to each individual business, were also incorporated into the Annual Planning Report improvement plans.[111]

The AER transmission Annual Planning Report improvement plans were taken into account in the 2016 Annual Planning Reports, which were published on 30 June 2016. The Commission notes the following observations based on a high-level comparison of 2015 and 2016 transmission Annual Planning Reports:

- there is a trend toward the provision of more data to accompany the Annual Planning Report document;
- there is a trend toward providing chapters of the Annual Planning Report as separate documents (rather than the entire report in one document); and

109 As part of its declared network functions, AEMO is the transmission planner for Victoria and therefore prepares the Victorian Annual Planning Report. For all other NEM jurisdictions the jurisdictional planning body is the local TNSP.

110 AER, Quarterly Compliance Report, January-March 2014, p. 17.

111 Ibid., p. 18.

- TNSPs are providing more information on the network capacity for new generation connections in the Annual Planning Reports.[112]

The above improvements demonstrate the reasons why the Commission has decided on a more flexible approach to improving the consistency of Annual Planning Reports. There are industry-led initiatives to improve the content and structure of these planning documents that should be allowed to develop without rigid Rules requirements. The Commission also notes feedback from stakeholders that TNSPs are, in recent years, more active in engaging with stakeholders on the form and content of their Annual Planning Report documents.

Additional information requirements in TNSP Annual Planning Reports

The objective of the Annual Planning Report is to provide stakeholders with relevant information on the future of the transmission network in question. It is also a key tool for the AER. In order to maintain the usefulness and value of the Annual Planning Report, the information included in the document should provide insights to stakeholders that can be used to inform potential non-network investments, to inform future connections and to provide detailed information on future constraints and proposed solutions. In addition, stakeholders that use Annual Planning Reports should be able to understand how the planning was undertaken in terms of the forecasting methodology used and context on how forecasts may change over time.

In terms of information, the Commission understands that stakeholders that use Annual Planning Reports value detailed commentary on constraints and network demand. Many stakeholders have also indicated to the Commission that commentary on what has changed since last year's Annual Planning Report, why this change has occurred and the materiality of this change is also absent from current Annual Planning Reports and should be required.

To address stakeholder's needs, the draft Rule requires that TNSPs include the following additional information in their Annual Planning Report:

- a description of the forecasting methodology, sources of input information, and the assumptions applied in respect of the forecast loads;[113]

- a description of high, most likely and low growth scenarios in respect of the forecast loads;[114]

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112 For example the 2016 Annual Planning Report from Powerlink includes a new chapter providing information on network capacity for new generators and some details on how Powerlink intends to provide support for the development of renewable energy infrastructure. Powerlink state that the reason for the addition of the new chapter is "due to the recent volume of interest in solar development projects in Queensland, this is newly-developed chapter of Powerlink's 2016 Annual Planning Report focuses on solar energy project development opportunities". See https://www.powerlink.com.au/About_Powerlink/Publications/Transmission_Annual_Planning_Reports/Transmission_Annual_Planning_Report_2016.aspx

113 Clause 5.12.2(c)(1)(i) of the draft Rule.

114 Clause 5.12.2(c)(1)(ii) of the draft Rule.

- an analysis and explanation of any aspects of forecast loads provided in the Annual Planning Report that have changed significantly from forecasts provided in the previous year's Annual Planning Report;[115]

- an analysis and explanation of any aspects of forecast loads provided in the Annual Planning Report from the previous year, which are significantly different from the actual outcome;[116]

- a forecast of constraints and inability to meet network performance requirements, including at least:[117]

  — a description of the constraints and their causes;

  — the timing and likelihood of the constraints;

  — a brief discussion of the types of planned future projects that may address the constraints over the next five years, if such projects are required; and

  — sufficient information to enable an understanding of the constraints and how such forecasts were developed;

- an analysis and explanation of any other aspects of the Annual Planning Report that have changed significantly from the preceding year's Annual Planning Report, including the reasons why the changes have occurred;[118] and

- the results of joint planning (if any) undertaking under the draft Rule clause 5.14.3 (discussed above) in the preceding year, including a summary of the process and methodology used by the TNSPs to undertake joint planning and the outcomes of that joint planning.[119]

AER Guideline on the consistency of Annual Planning Reports

The Commission notes stakeholder feedback that requirements regarding the structure of Annual Planning Reports should not be overly prescriptive or rigid and that consistency across TNSP Annual Planning Reports should not come at the expense of quality. Therefore, the draft Rule tasks the AER with the development of guideline on the consistency of Annual Planning Reports rather than prescribing detailed requirements in the Rules.[120] This is a more flexible approach that is superior to placing rigid requirements regarding the consistency of Annual Planning Reports in

115 Clause 5.12.2(c)(1)(iii) of the draft Rule.

116 Clause 5.12.2(c)(1)(iv) of the draft Rule.

117 Clause 5.12.2(c)(3) of the draft Rule.

118 Clause 5.12.2(c)(9) of the draft Rule.

119 Clause 5.12.2(c)(10) of the draft Rule.

120 See clause 5.14B.1 of the draft Rule.

the Rules. The draft Rule also notes that the transmission Annual Planning Reports must be consistent with this guideline.[121]

There are two advantages to the guideline approach. First, the AER will engage in a process of consultation with stakeholders in the development of the guideline. This will allow for stakeholder feedback and insight to be incorporated into the guideline. This will help to make any changes to improve the consistency of Annual Planning Reports useful and achievable.

Second, the guideline can be changed without the need for a formal rule change process. This will allow for the requirements surrounding the need for consistency across Annual Planning Reports to adapt more easily to changing circumstances. This is beneficial as a key objective of Annual Planning Report is to provide useful information to stakeholders. In order to meet this objective Annual Planning Reports should be able to adapt to provide information in a format that reflects the potential changing needs of market participants.

The proposed approach is also consistent with the Annual Planning Report improvement work conducted by the AER.

7.3.5 Conclusions

The draft Rule will provide stakeholders with better quality information through the requirements to include additional information, as listed above, in TNSP Annual Planning Reports. The draft Rule will also promote consistency across TNSPs' Annual Planning Reports by tasking the AER with developing a guideline on consistency of Annual Planning Reports. The guideline approach achieves consistency in a way that flexible and adaptable. Both of these changes will be required from the publication of TNSPs' 2018 Annual Planning Reports, by 30 June 2018.

The draft Rule is also compatible with the approach taken by the AER in its recent work to improve TNSP Annual Planning Reports. The Commission notes that since the AER work to improve Annual Planning Reports has begun, the structure and content of Annual Planning Reports are changing and TNSPs are becoming more responsive to stakeholder feedback regarding their Annual Planning Report documents.

The Commission notes that Rules requirements for distribution Annual Planning Reports are more prescriptive than the current requirements for transmission Annual Planning Reports. However, the Commission does not intend to introduce the level of prescription that is in the Rules with respect to distribution Annual Planning Reports for transmission. The Commission considers that the draft Rule is more appropriate than prescriptive Rules requirements for the following reasons:

- The requirements to include additional information, as listed above, in the draft Rule represent the main data gaps that stakeholders have identified with respect to current transmission Annual Planning Reports. Therefore, the Commission

121 Clause 5.12.2(c) of the draft Rule.

considers that the draft Rule will improve the quality of transmission Annual Planning Reports and largely address stakeholders' concerns.

- As described above, the content and format of Annual Planning Reports are changing and we are told that TNSPs are consulting with stakeholders more closely in order to increase the usefulness of their Annual Planning Reports. The Commission considers that the Rules should not be overly prescriptive as this may impede this industry-led process to improve Annual Planning Reports.

- The Rules with respect to the format of Annual Planning Reports should be flexible. Stakeholders have cautioned against imposing requirements that may become obsolete. It is expected that the granularity of data that will become available as part of the Annual Planning Report process will increase in the future in response to demands from non-network providers and other market participants.

- It is likely that providers of non-network options for transmission networks are larger, and more sophisticated than potential non-network options for distribution networks. Therefore, less prescriptive information is required in order to be useful to potential non-network providers.

7.4 Implementation of planning aspects of the draft Rule

The Commission sets out below how it intends that the package of provisions contained in the draft Rule would commence, and be applied once a final rule determination is made. However, the draft Rule does not contain draft savings and transitional provisions. A paper outlining a complete savings and transitional proposal, along with draft Rules relating to this component, will be published for comment in mid-January 2017.

The Commission intends that the above amendments (i.e. joint planning between TNSPs, and amendments to the requirements for transmission Annual Planning Reports) would commence on 30 June 2018. This will enable these changes to come into effect for the publication of the 2018 transmission Annual Planning Reports, which are required to be published by 30 June 2018.

In addition, a savings and transitional Rule will be made requiring the AER to prepare a guideline on the consistency of the Annual Planning Reports by 31 December 2017.

The Commission considers that these timeframes provides sufficient time for the AER to prepare the guideline, and for TNSPs to incorporate their new obligations into the preparation of the 2018 Annual Planning Reports.

A Legal requirements under the NEL

This appendix sets out the relevant legal requirements under the NEL for the AEMC to make this draft rule determination.

A.1 Draft rule determination

In accordance with s. 99 of the NEL the Commission has made this draft rule determination in relation to the rule proposed by the COAG Energy Council.

The Commission's reasons for making this draft rule determination are summarised in section 2.4.

A copy of the more preferable draft rule is attached to and published with this draft rule determination. Its key features are described in section 2.4.

A.2 Power to make the rule

The Commission is satisfied that the more preferable draft Rule falls within the subject matter about which the Commission may make rules. The more preferable draft Rule falls within s. 34 of the NEL and as it relates to:

- the operation of the national electricity system for the purposes of the safety, security and reliability of that system; and
- the activities of persons (including registered participants) participating in the national electricity market or involved in the operation of the national electricity system.

Further, the more preferable draft Rule falls within the matters set out in schedule 1 to the NEL as it relates to:

- the registration of persons as Registered participants or otherwise for the purposes of this Law and the Rules, including the deregistration of such persons or suspension of such registrations;
- the exemption of persons from the requirement to be Registered participants;
- the operation of generating systems, transmission systems, distribution systems or other facilities;
- the augmentation of transmission systems and distribution systems;
- access to electricity services provided by means of transmission systems and distribution systems;

- the regulation of revenues earned or that may be earned by owners, controllers or operators of transmission systems from the provision by them of services that are the subject of transmission determination;
- the assessment, or treatment, by the AER, of investment in transmission systems for the purposes of making a transmission determination;
- terms and conditions for the provision of electricity network services, or any class of electricity network services (including shared transmission services);
- disputes under or in relation to the Rules between persons; and
- the attainment of a national strategic perspective for transmission planning and coordination.

A.3 Commission's considerations

In assessing the rule change request the Commission considered:

- its powers under the NEL to make the rule;
- the rule change request;
- submissions received during the first and second rounds of consultation;[122]
- the Commission's analysis as to the ways in which the proposed rule will or is likely to, contribute to the NEO; and
- the form of regulation factors in making a Rule that specifies an electricity network service as a negotiated network service.[123]

The Commission has not considered the revenue and pricing principles.[124] This is because the Commission considers that these are not relevant here. While the draft Rule changes the process associated with a transmission determination (by removing the requirement for the AER to approve a negotiating framework and negotiated transmission service criteria as part of a determination), this does not directly affect, or change, regulated revenues or the provision of direct control services as discussed in these factors.

There are no current Ministerial Council on Energy Statements of Policy Principles.[125]

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122 That is, the consultation paper and discussion paper, which can be found on our website. See: http://www.aemc.gov.au/Rule-Changes/Transmission-Connection-and-Planning-Arrangements

123 NEL, Part 1, s 2F and s 88A.

124 NEL, Part 1, s 7A and s 88B.

125 Under section 33 of the NEL the AEMC must have regard to any relevant MCE statement of policy principles in making a rule. The MCE is referenced in the AEMC's governing legislation and is a legally enduring body comprising the Federal, State and Territory Ministers responsible for Energy.

A.3.1 Form of regulation factors

The Commission has had regard to the form of regulation factors as set out in section 2F in the NEL. In particular, the analysis and conclusions set out in appendices B to F draw on the Commission's consideration of the form of regulation factors. In particular, the Commission has considered:

- the presence and extent of any barriers to entry in a market for electricity network services[126] e.g. the Commission sought input from a number of generators and renewable energy developers to inform its understanding of whether introducing competition to the services provided in relation to identified user shared assets would be beneficial (see section B.2.4);

- the presence and extent of any network externalities (that is, interdependencies) between an electricity network service provided by a NSP and any other electricity network service provided by the NSP, as well as, between an electricity network service provider by a NSP and any other service provided by the NSP in any other market[127] e.g. the draft Rule places additional transparency requirements on TNSPs, which will provide connecting parties with more information, and so strengthen a connecting party's negotiating power with the TNSP (see section B.2.4);

- the extent to which any market power possessed by an NSP is, or is likely to be, mitigated by any countervailing market power possessed by a network service user or prospective network service user[128] e.g. the Commission has elevated the current negotiating frameworks to the Rules in order to strengthen a connecting party's negotiating power with a TNSP (see section C.2.2);

- the presence and extent of any substitute, and the elasticity of demand, in a market for an electricity network service in which a NSP provides that service, and in a market for electricity[129] e.g. the Commission considers that some services associated with connection can be provided on a contestable basis since a workably competitive market is likely to exist (see sections B.2.4 and D.2.4); and

- the extent to which there is information available to a prospective network service user or network service user, and whether that information is adequate, to enable the prospective network service user or network service user to negotiate on an informed basis with a NSP for the provision of an electricity network service to them by the NSP[130] e.g. the draft Rule places additional transparency requirements on TNSPs, which will improve the understanding of

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On 1 July 2011 the MCE was amalgamated with the Ministerial Council on Mineral and Petroleum Resources. The amalgamated Council is now called the COAG Energy Council.

126 NEL, Part 1, s 2F(a)

127 NEL, Part 1, s 2F(b) and (c).

128 NEL, Part 1, s 2F(d).

129 NEL, Part 1, s 2F(e) and (f).

130 NEL Part 1, s 2F(g).

the connections framework and so promote more efficient decisions being made by both established and new market participants (see section C.3.2).

A.3.2 Declared network functions

The Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed rule is compatible with the proper performance of Australian Energy Market Operator (AEMO)'s declared network functions.[131] The draft Rule is compatible with the performance of those functions as it leaves those functions unchanged. Further detail on the Commission's assessment of this issue is set out in Chapter 6.

A.3.3 Application to Northern Territory

The *National Electricity (Northern Territory) (National Uniform Legislation) Act 2015* allows for an expanded definition of the national electricity system in the context of the application of the NEO to rules made in respect of the Northern Territory, as well as providing the Commission with the ability to make a differential rule that varies in its terms between the national electricity system and the Northern Territory's local electricity system.

The Commission has considered whether a differential rule is required for the Northern Territory electricity service providers and concluded that it is not required in this instance. This is because the provisions of the draft Rule either do not currently apply in the Northern Territory or are redundant because of other provisions that do not apply.

A.4 Civil penalties

A.4.1 Moved provisions

The Commission's draft more preferable Rule moves a number of provisions in Chapter 5 of the Rules that are currently classified as civil penalty provisions under Schedule 1 of the National Electricity (South Australia) Regulations to other locations in Chapter 5. These provisions are as set out in Table A.1 below. The Commission considers that these clauses should continue to be classified as civil penalty provisions and therefore proposes to recommend to the COAG Energy Council that the Regulations are amended to reflect the new rule numbering.

131 Section 91(8) of the NEL.

Table A.1 Moved clauses that the Commission recommends should continue to attract a civil penalty

New clause reference	Old clause reference	Who the obligation is imposed upon	Recommendation
5.3A.12(b)	5.4AA(b)	*Network Service Provider*	Retain
5.3AA(h)	5.5(h)	*Distribution Network Service Provider*	Retain
5.6.2(a)	5.4.2(a)	*Registered Participant* or the person intending to be registered as a *Generator*	Retain
5.6.2(b)	5.4.2(b)	*Registered Participant* or the person intending to be registered as a *Generator* and the *Network Service Provider*	Retain

A.4.2 Amended provisions

The Commission's draft more preferable Rule amends the following clauses of the Rules as set out in Table A.2 below. These are currently classified as civil penalty provisions under NER Schedule 1 of the National Electricity (South Australia) Regulations. The Commission considers that these clauses should continue to be classified as civil penalty provisions and therefore does not propose to recommend any change to their classification to the COAG Energy Council.

Table A.2 Amended clauses that the Commission recommends should continue to attract a civil penalty

New clause reference	Old clause reference	Who the obligation is imposed upon	Recommendation
5.2.3(e)	N/A	*Network Service Provider* including *Dedicated Connection Asset Service Provider*	Retain
5.3.3(b)	N/A[132]	*Network Service Provider*	Retain
5.3.3(c)	N/A[133]	*Network Service Provider*	Retain
5.3.6(b), (b2), (j)	N/A	*Network Service Provider*	Retain

The Commission cannot create new civil penalty provisions. However, it may recommend to the COAG Energy Council that new or existing provisions of the NER be classified as civil penalty provisions. The new provisions that the Commission is recommending to the COAG Energy Council as civil penalty provisions are set out below in Table A.3. The Commission considers that the new provisions should be classified as civil penalty provisions for the reasons set out in the table.

132 Amendment is in the body of the clause 5.3.3(b), imposing additional obligations and responsibilities on the Network Service Provider which now also attracts a civil liability penalty.

133 Amendment is in the body of the clause 5.3.3(c) which does not amend in a material way the obligations and responsibilities of the Network Service Provider.

Table A.3 New clauses that the Commission recommends should attract a civil penalty

New clause reference	Old clause reference	Who the obligation is imposed upon	Recommendation
2.5.1(d5)	N/A	*Dedicated Connection Asset Service Provider*	This clause should be classified as a civil penalty provision because the obligations imposed on the *Dedicated Connection Asset Service Provider* by the AER would be directed towards the operation of a safe, reliable and secure power system, which is key to the effective operation of the NEM.
5.2.7(b)	N/A	*Dedicated Connection Asset Service Provider*	This clause should be classified as a civil penalty provision because the obligation imposed on the *Dedicated Connection Asset Service Provider* to ensure that the *dedicated connection asset* meets its performance and system standards and it complies with its *connection agreement* with the relevant TNSP is key to the effective operation of the NEM.
5.2A.6(c)	N/A	*Dedicated Connection Asset Service Provider*	This clause should be classified as a civil penalty provision because the obligations on Dedicated Connection Asset Service Providers to comply with its access policy and those negotiating principles set out in schedule 5.12 are important to the transparency and predictability in the national transmission system for effective operation of the NEM.
5.2A.8(d)	N/A	*Dedicated Connection Asset Service Provider*	This clause should be classified as a civil penalty provision because the obligation to produce an *access policy* is essential to providing third party access to *large dedicated connection assets* which is key to the effective operation of the NEM.
5.3.6(b4)	N/A	*Primary Transmission Network Service Provider*	This clause should be classified as a civil penalty provision because it is a key obligation on the *Primary Transmission Network Service Provider* in the connection process to enable connection applicants to get offers from other parties for contestable elements of identified user share assets in order to promote efficient connections.

A.4.3 Deleted provisions

The Commission does not consider any other provisions of the draft Rule should be classified as civil penalty provisions. However, the draft Rule deletes a clause that is currently a civil penalty provision. Therefore, the Commission considers that this rule should no longer continue to be classified as a civil penalty provision because it is being deleted and therefore will propose to the COAG Energy Council that its classification is changed. See Table A.4 for further details.

Table A.4 Deleted clauses that no longer attract a civil penalty

New clause reference	Old clause reference	Who the obligation is imposed upon	Recommendation
5.3.6(i)	Deleted	N/A	Deleted

A.5 Conduct provisions

The Commission's draft Rule does not propose any changes to conduct provisions.

H Summary of other issues raised in submissions relating to planning

This appendix sets out the issues raised in the first and second rounds of consultation on this rule change request and the AEMC's response to each issue. If an issue raised in a submission has been discussed in the main body of this document, it has not been included in this table.

Issue raised	Stakeholder	AEMC response
In addition to consideration of cross-regional options the regulatory framework should allow for consideration of (and funding for) distribution-based solutions to issues on the transmission network and vice versa.	AEMO, submission to the consultation paper, p. 4.	The Commission considers that the current regulatory framework does allow for the consideration of distribution-based solutions for the transmission network. The Commission considers that such investment should be considered and implemented if it is the most efficient option to meet an identified network need. The existing joint planning requirements for TNSPs and DNSPs are intended to facilitate these potential investment opportunities.
Ausgrid states that they have an obligation to prepare a Transmission Annual Planning Report since it has dual function assets, and so is registered as both a DNSP and TNSP. However, not all aspects common to transmission businesses apply to Ausgrid. For example, Ausgrid has no need to consult on inter-regional issues with TNSPs in Victoria or Queensland. If considering changes to Transmission Annual Planning Reports, DNSPs that are also TNSPs solely because they operate dual function assets should be made exempt from any requirements that would not be appropriate.	Ausgrid, submission to the consultation paper, p, 2.	The proposed changes set out in the draft Rule apply to all participants who produce Transmission Annual Planning Reports. However, the Commission understands that Ausgrid produces its Transmission Annual Planning Report, as part of its Distribution Annual Planning Report and expects that this will continue. Further, in relation to the joint planning requirements, the draft Rule requires TNSPs to undertake joint planning if a possible credible option to address a constraint in a transmission network is an augmentation to the transmission network of another TNSP; and that constraint is not already being considered under other processes under the Rules. The Commission expects that constraints relating to dual function assets would most likely be considered through TNSP-DNSP joint planning, and so would not have to be considered under the TNSP-TNSP joint planning.

Issue raised	Stakeholder	AEMC response
A key problem with the current Annual Planning Report framework is that it tends to become out of date, particularly in the context of rapidly changing market conditions. For instance, Rule 5.12.2 does not require TNSPs to report on IT and communications projects, even though these types of projects account for an increasing proportion of TNSP capex.	AEMO, submission to the consultation paper, p. 4.	The draft Rule recognises the need for flexibility in the requirements regarding the format of Annual Planning Reports to ensure that they remain fit-for-purpose in a changing energy market environment. The additional information requirements in the draft Rule reflect stakeholder feedback on what information is currently missing from Annual Planning Reports. The draft Rule does not include specific requirements to report on IT and communications projects. The Commission notes the work that the AER and individual TNSPs have undertaken to improve the quality of Annual Planning Reports in recent years. The Commission also notes that it is currently considering a rule change request from the AER relating to replacement expenditure planning arrangements.[500]

500 See: http://www.aemc.gov.au/Rule-Changes/Replacement-Expenditure-Planning-Arrangements

Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
Commission	See AEMC
DNSP	Distribution network service provider
DTSO	Declared transmission system operator
DUOS	Distribution use of system
LRPP	Last resort planning power
MCE	Ministerial Council on Energy
MNSP	Market network service provider
NEL	National Electricity Law
NEM	National energy market
NEO	National electricity objective
RET	Renewable energy target
RIT-D	Regulatory investment test for distribution
RIT-T	Regulatory investment test for transmission
TNSP	Transmission network service provider
TUOS	Transmission use of system