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National Electricity Rule Change Request

Negotiated Connection Frameworks for Embedded Generator Connections under Chapter 5A

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Status: Final Proposal for submission to the Australian Energy Market Commission (AEMC)

Notes: Comments closed

Summary

Achieving a connection offer and agreement is widely described as being the most complex and troublesome aspect of any embedded generation (EG) development. The process is often inefficient and can be faced with significant delays and disproportionately high costs. In turn these issues create an extremely uncertain environment for investment which can be project-breaking.

These issues usually stem from an inability to negotiate effectively with a distribution network service provider (DNSP). Connection applicants are not provided with sufficient information to fully understand the implications of the connection from an early stage, prior to engaging in the negotiation process, and subsequently often poorly equipped to properly manage the negotiating process.

Chapter 5A was developed under the direction of the Ministerial Council on Energy (MCE) and entered the National Electricity Rules (NER) as of July 2012, with the intended commencement of the National Energy Customer Framework (NECF). The new chapter is intended to reform current jurisdictional customer connection frameworks by endorsing a national framework into the NER. In doing so, Chapter 5A treats small embedded generator connections as customer connections and aimed to be ‘non-disruptive’ to current connection processes. As a result it has made little headway to resolve the many issues which have been revealed with the current connection frameworks for EG.

Connection process issues, which have been revealed through many bodies of work (cited herein), are broad enough to warrant significant reform to the connection frameworks. A lack of prescription in the rules is one of the key reasons for issues arising. In many cases proponents do not have significant experience with the connection process and require a framework which provides effective support. The NER should be clear enough to ensure that an EG project can connect under a process which facilitates certainty and this proposal recognises that in most cases certainty of outcomes is more important than the actual outcomes themselves – outcomes can be valued materially while uncertainty presents significant risk.

On this basis the Clean Energy Council (CEC) does not consider that further analysis of the adequacy of the existing frameworks is needed and has developed this rule change proposal on the basis of well documented industry experiences. Many of the issues identified with current DNSP approaches to EG connection, and subsequently those endorsed by Chapter 5A, are not widely recognised to occur for larger generators connecting under the current Chapter 5 process where the rules are more prescriptive. In conjunction the CEC recognises that the proposed framework is fundamentally consistent with the documented connection process of at least one DNSP.

The proposed rule change seeks to reform the Chapter 5A connection framework through making significant changes to the EG connection process for ‘negotiated’ connections. In some cases these changes align the Chapter 5A process to that which larger generators follow in Chapter 5 in recognition of the comparative success of this framework. Some of the proposed changes also intend to streamline the framework in light of the specific needs of distribution connections.

This rule change proposal is fundamentally hinged on information transparency in order to better facilitate the intent of the NER to harbour countervailing market power in connection negotiations. The approach taken intends to provide more certainty for new negotiated embedded generator connections by clearly defining roles and obligations. It supports a framework within which embedded generator investments can occur more efficiently and market forces can deliver efficiencies and innovative solutions to the greatest extent possible.

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1 Background

This rule change proposal seeks to enhance the current negotiated connection frameworks applied to non-registered embedded generation through NER Chapter 5A. As defined by this chapter a non-registered embedded generator is any non-registered *generating system* which does not comply with the AS 4777 standard and is connected to a distribution network. The Australian Energy Market Operator (AEMO) places upper limits on registration through a standing exemption for all generators rated less than 5 MW or less than 30 MW and generating less than 20 GWh/annum.

While the option exists for the Chapter 5 connection process to be applied the CEC expects that Chapter 5A will eventually apply to the vast majority of embedded generators with capacities between 30 kW¹ and 5 MW in the National Electricity Market (NEM).

1.1 Historic arrangements for the connection of embedded generation

Historically, arrangements for the connection of embedded generation in the NEM have been set out by the relevant DNSP policies and/or licence conditions.

For example, in Victoria a DNSP's Distribution Licence contains its obligation to process connection applications while the Essential Services Commission of Victoria's electricity industry guidelines outline the connection process and the rights and obligations of parties during the process. In other states this process has been guided by guidelines, codes and applicable regulations or by the DNSP's internal processes.

Most processes will have made some use of the NER Chapter 5 connection framework intended for registered generators and all cases necessarily observe the mandatory obligation to maintain supply reliability, security and safety. Although the technical standards applied to smaller, distribution connected, generators can vary significantly from those defined within NER Schedule 5.2 and applied to larger registered generators.

In some cases the DNSP will require that they are solely responsible for the development of the connection, while other DNSPs prefer the applicant to develop the connection and are content with the role of reviewing, negotiating and approving prior to making a connection offer.

Whilst the NEM has been fundamentally designed on the basis of open and non-discriminatory access² the approach taken to connections has raised many issues which appear to contradict this intent. These have been well documented in recent bodies of work. In general, and despite the intent of the relevant legislative instruments, these works have identified that the negotiated connection process

- lacks transparency;
- can extend for significant periods with timeframes outside of the control of the applicant;
- does not facilitate an integrated method of assessing the project within network capability;

¹ As defined by the scope of the AS4777 standard.

² National Grid Management Council, 1993, *The Structure of an Interstate Transmission Network for Eastern and Southern Australia*, p. A1.

- is susceptible to significant uncertainty and risk as connection costs, which average half of the total project cost, may not materialise until very late in the process after the proponent has invested significant resources;
- is misaligned with the economically rational decision making points that apply to an EG project, and;
- generally includes terms which extend to unlimited liabilities.

The CEC expects that the only way to manage these issues is to review the connection framework and envelope an efficient and practical approach to EG connections within the NER.

1.2 Intended arrangements for the connection of embedded generation

As a component of the NECF legislation package³ the National Electricity (Retail Connection) Amendment Rules 2010⁴ inserted the new Chapter 5A into the NER. The intention of the new chapter was to provide a streamlined connection process. It aligns the connection process of retail customers and *non-registered embedded generators* and inserts a framework within the NER which provides certainty to customers whilst remaining ‘non-disruptive’ to connection processes.

The MCE’s intent for Chapter 5A

During the development of Chapter 5A the MCE made clear that their intent was to capture all connections which comply with the AS 4777 standard within the basic connection class⁵. The CEC believes that the vast majority, if not all, non-registered EGs which do not comply with the AS 4777 standard will be subject to a negotiated connection under Chapter 5A.

The MCE also made clear that the new “*connection frameworks provide substance of the ‘obligation to offer connection’ placed on distributors*”⁶ and that the intent of Chapter 5A was to ensure that customers have “*access to new connections or alterations meeting their requirements in a fair and certain manner, and as quickly as reasonably as possible*”⁷.

As will be shown, despite the intention of the new Chapter 5A, the practical application of this chapter to EG connections does not reflect the MCE’s intent. In many cases this is due to the non-disruptive approach to the development of Chapter 5A and the treatment of *non-registered embedded generation* in the same manner as a load. In general, as generation is not subject to use of system charges the NER needs to provide additional consideration for generators in order to develop

³ Department of Resources, Energy and Tourism, 2012, “*National Energy Customer Framework*”, available: www.ret.gov.au.

⁴ Department of Resources, Energy and Tourism, 2010, “*National Electricity (Retail Connection) Amendment Rules 2010*”, available: www.ret.gov.au.

⁵ 2009, MCE, *National Energy Customer Framework, Second Exposure Draft*, p. 17, available: www.mce.gov.au.

⁶ *Ibid*, p. 15.

⁷ *Ibid*.

a streamlined approach to connections. The CEC believes that some key aspects of the existing NER framework need to be recognised within the Chapter 5A framework.

Chapter 5A as implemented

The new chapter considers that ‘micro’ embedded generators⁸ are entitled to automatic access and that larger *non-registered embedded generators*⁹ can either be classified by the relevant DNSP into a *standard connection service* class or will negotiate a connection agreement otherwise. Given the significant diversity between distribution networks and EG technologies and sizes, the classification of all EG connections into *standard connection service* classes would likely require a significant administrative burden. This alone would make the widespread adoption of *standard connection services* for EG connections difficult in practice. Notwithstanding this, technical characteristics should allow DNSPs to develop suitable *standard connection services* for some EG connections.

The recent application of the new process in Tasmania shows that Aurora have selected to bring any *micro embedded generator* for which a *network augmentation* is required into the negotiated connection service bracket¹⁰ despite Chapter 5A making provision for this to occur through a DNSP-defined *standard connection service*. This outcome indicates that the MCE’s intent is not being met under the application of Chapter 5A. It also demonstrates that the lack of prescription within the Chapter 5A negotiating framework has allowed Aurora to override the intent of the MCE for a streamlined connection process for this particular class of *retail customer*.

1.2.1 Implementation of the National Energy Customer Framework

The intended commencement date for the NECF was July 1 2012. At the time of writing three of the six political jurisdictions had not passed the legislation indicating that NEM-wide endorsement of Chapter 5A will take longer than expected. The CEC’s understanding of the expected endorsement dates is outlined in Table 1.

⁸ As defined by Chapter 5A a micro embedded generator is one which is contemplated by the Australian Standard AS 4777.

⁹ For the avoidance of doubt these *non-registered embedded generators* are those which do not comply with the AS4777 standard and have a combined maximum nameplate rating of 5 MW, or 30 MW and generating less than 20 GWh/annum. The CEC expects that the application of Chapter 5A to these generators where they have voluntarily registered with AEMO would be at the discretion of the DNSP.

¹⁰ 2012, Aurora Energy, *Guideline for the Connection of Micro Embedded Generators to the Aurora Distribution Network*, p. 12, available: www.arouraenergy.com.au.

Table 1: Observed planned NECF roll out dates.

Jurisdiction	Status	Planned implementation date
NSW	Deferred	1 January 2014
QLD	Partly deferred	Uncertain
Vic	Deferred	1 January 2014
Tas	Implemented	1 July 2012
ACT	Implemented	1 July 2012
SA	Implemented	1 February 2013

1.3 Relevant consultations and research

As previously indicated there have been a range of recent bodies of work which have identified and sought to resolve issues and barriers impeding the development of EG across the NEM.

The CEC expects that the proposed rule change enhances Chapter 5A to support the findings, direction and recommendations of the following relevant material.

The Victorian Competition and Efficiency Commission's (VCEC) Inquiry into Feed-in Tariffs and Barriers to Distributed Generation

The VCEC inquiry terms of reference included an investigation to *"Identify any State and/or local regulatory and other barriers to the development of a network of distributed renewable and low emission generation in Victoria, including co-generation and tri-generation"*¹¹.

While focussed on issues identified by Victorian stakeholders the VCEC's Draft Report identified that *"the complexity of the connection process was raised by medium-scale distributed generators as the largest barrier to efficient investment in distributed generation"*¹². The inquiry revealed that amongst other things the majority of the barriers identified stem from information asymmetries that arise during the connection process. Further, DNSPs can manipulate connection timeframes¹³ under the current Victorian connection process and full costs pass-through arrangements expose *connection applicants* to potential gaming by DNSPs¹⁴.

With regards to medium scale EG the VCEC's Final Report went on to recommend that *"the Victorian Government support initiatives that:*

- *clarify minimum technical standards and cost sharing arrangements that would support a right to connect and export*

¹¹ Victorian Competition and Efficiency Commission, 2012, *Power from the People: Inquiry into distributed generation* (Draft Report), p. v, available: www.vcec.vic.gov.au.

¹² Ibid, p. xxi.

¹³ Ibid, p. xxxv.

¹⁴ Ibid, p. 74.

- *improve information on the connection process and the exchange of information between the DNSP and the distributed generator early in the connection process ...*
- *standardise connection processes*
- *improve engagement between DNSPs and distributed generators*
- *specify and reduce timelines*¹⁵

This rule change proposal seeks to address each of these aspects to varying extents.

AEMC Inclusion of Embedded Generation Research into Demand Management Incentive Scheme (ERC0128)

The Embedded Generation Research into Demand Management Incentive Scheme (DMIS) rule change was instigated by the Ministerial Council on Energy (MCE) in November 2010¹⁶ with the AEMC making its final determination in December 2011. The rule change was invoked on the basis that DNSPs had weak incentives to minimise EG connection costs and proposed to expand the DMIS to drive innovation in connection practices.

In making the final determination the AEMC agreed with the MCE and noted that the rule change would *“be the most practical and effective way of encouraging DNSPs to consider more innovative and cost effective ways of connecting embedded generators to distribution networks”*¹⁷. The expansion of the DMIS was not intended to compel DNSPs to consider non-network solutions. Rather the AEMC concluded that it would *“help promote more efficient use of demand management and other non-network alternative solutions by balancing existing investment incentives for DNSPs with more opportunities for innovation in utilising embedded generators in managing electricity demand”*¹⁸.

Despite the intent the AEMC conceded that *“the benefits for the promotion and uptake of non-network alternative investment brought about by the rule are likely to be small”*¹⁹. The CEC can only assume that this is because a DNSP’s incentives to ensure network reliability and supply quality remain much stronger than either the DMIS incentives or any benefit that could arise from an efficient EG connection.

The CEC expects that this proposed rule change will complement the direction made by the MCE to enhance innovation in the connection of EG, while also enabling EG proponents to better integrate

¹⁵ Victorian Competition and Efficiency Commission, 2012, *Power from the People: Inquiry into distributed generation* (Final Report), p-p. xl-xli, available: www.vcec.vic.gov.au.

¹⁶ MCE, 2010, *Rule Change Request: Inclusion of Embedded Generation Research into Demand Management Incentive Scheme*, available: www.aemc.gov.au.

¹⁷ AEMC 2011, *Inclusion of Embedded Generation Research into Demand Management Incentive Scheme, Rule Determination*, 22 December 2011, Sydney, p. i, available: www.aemc.gov.au.

¹⁸ Ibid, p. 8.

¹⁹ Ibid, p. 32.

their projects within the appropriate technical standards. This rule change proposal also supports removing the barrier presented by the lack of clear technical standards for connection²⁰.

AEMC Small Generator Aggregator Framework Rule Change (ERC0141)

The Small Generator Aggregator Framework rule change proposal intended “to encourage small generators to participate in the market by reducing financial barriers to entry”²¹ by creating a Small Generator Aggregator registration category for this purpose.

This minor change intended to enhance investment opportunities for EG across the NEM. The AEMC expects that the final rule will contribute to the achievement of the NEO by reducing the costs associated with the registration of EG, enhanced competition for peak generation capacity and improved efficiency in the use of peak generation capacity²².

The CEC strongly agrees with the AEMC that there are benefits to lowering barriers to market entry faced by small generators. The rule change proposed here would enable these same small generators the ability to physically connect their plant through a more streamlined connection framework which would in turn contribute to exactly the same goals as proposed to be achieved by the ERC0141 rule change.

AEMC Distribution Network Planning and Expansion Framework Rule Change (ERC0131)

Under direction from the MCE the ERC0131 rule change proposal sought to enhance the opportunities for EG developments by making a provision for EG to participate in planning processes by assisting market participants to make “efficient investment decisions and enable non-network providers to put forward credible non-network options as alternatives to network investment”²³.

In making the final determination the AEMC states that

“the final rule will contribute to the achievement of the National Electricity Objective (NEO) by establishing a clearly defined and efficient planning process for distribution network investment. This will support the efficient development of distribution networks. It will also provide transparency to, and information on, distribution business planning activities and decision making processes. This will assist market participants in making efficient investment decisions and enable non-network providers to put forward non-network options as credible alternatives to network investment.”

²⁰ MCE, 2010, *Rule Change Request: Inclusion of Embedded Generation Research into Demand Management Incentive Scheme*, pp. 4-5, available: www.aemc.gov.au.

²¹ AEMC 2012, *Small Generation Aggregator Framework, Consultation Paper*, 15 March 2012, Sydney, p. 1, available: www.aemc.gov.au.

²² AEMC, 2012, *Small Generation Aggregator Framework, Rule Determination*, 29 November 2012, Sydney, p. 19, available: www.aemc.gov.au.

²³ AEMC 2012, *Distribution Network Planning and Expansion Framework, Rule Determination*, AEMC, 14 June 2012, Sydney, p. i, available: www.aemc.gov.au.

In making its final rule determination, the Commission has considered whether the proposed framework will provide for the minimisation of total system costs which should, over time, lead to efficient prices. The Commission considers that the final rule will achieve this outcome.”²⁴

Included in this determination is the annual publication of a DNSP planning report which provides access to planning processes for non-network solution providers with the intent of identifying locational opportunities for these providers through coherent information.

Coherent and informative planning processes provide a benefit to non-network providers through clearer locational signals. The rule change proposed here also seeks to remove information asymmetries in the connection frameworks with the goal of enhancing certainty to enable embedded generators to make efficient investment decisions.

AEMC Connecting Embedded Generators Rule Change (ERC0147)

This rule change proposal identifies a range of barriers to the efficient connection of EG. It proposes to streamline the connection process by creating an automatic access category for EG through the development and application of plant standards under NER clause 5.3.3²⁵.

The proposal draws on the ability of an EG *connection applicant* to nominate that their application is processed under Chapter 5, rather than Chapter 5A. The proposal also seeks to streamline the connection process by allowing the DNSP to accept a fee and prescribing connection cost breakdowns by DNSPs. If successful connection costs would also be limited to ‘shallow’ costs thus reducing an applicant’s exposure to high connection costs.

The AEMC is currently preparing their Draft Decision which considers a range of issues related to EG connection processes and the management of these processes by DNSPs. In particular the AEMC is considering the important matters of the provision of information and connection process timeframes²⁶. If successful this rule change could provide a significant benefit to the connection process for embedded generators which can successfully meet the proposed plant standards.

This proposal also seeks to manage these same issues to a large degree. However, in doing so it addresses significant deficiencies in Chapter 5A which should be addressed irrespective of the intent of this proposal for a new process in Chapter 5.

²⁴ Ibid.

²⁵ NER, Version 50, 2012, Clause 5.3.3, available: www.aemc.gov.au.

²⁶ AEMC 2012, *Connecting embedded generators, Consultation Paper*, AEMC, 14 June 2012, Sydney, pp. 8-22, available: www.aemc.gov.au.

Sustainability Victoria – Distributed Generation Connection Experiences Analysis

Undertaken by Sustainability Victoria in 2010 this survey is likely to be the most comprehensive assessment of the connection experiences of EG proponents. It incorporates the experiences of 25 EG proponents or around half of the operating and proposed projects in Victoria²⁷.

The work made general conclusions that a connection's technical requirements and resulting connection costs presented two of the most common barriers to projects proceeding. The results indicated that costs associated with implementing a connection are usually equivalent to the cost of the on-site generating plant and equipment, at about half of the total project cost²⁸. The work also revealed that many applications take longer than 12 months to complete.

Despite the Victorian focus the general outcomes of this survey highlight the importance of early consideration of the connection requirements in light of network capability in order to develop an integrated solution efficiently. Further, there is a need to establish project viability at an early stage so that the proponent can make well informed investment decisions. This proposed rule change seeks to codify these outcomes into the NER framework.

The Structure of an Interstate Transmission Network for Eastern and Southern Australia, 1993

In 1993 the final recommendations on the structure of the *Interstate Transmission Network for Eastern and Southern Australia*²⁹ (the NEM as we now know it) were made by the National Grid Management Council (NGMC)³⁰. The framework set out a number of criteria which underpin its recommendations and the NEM's current design was formed on the basis of these recommendations.

The framework recognised that there was a need to ensure that no network could hinder a new connection. The framework called this "*Open and Non-discriminatory Access to the Grid*" which was supported by the Grid Protocol³¹ (the original NER):

"A central feature of the Protocol is the encouragement of trade in electricity through non-discriminatory access to the National Grid. The Protocol defines the responsibilities, procedures, terms and conditions that must be met by both existing and new Participants (grid owners/operators and grid users)." ... "the technical aspects (i.e. procedures for connections, the physical assets required and their performance characteristics) relating to entry, exit and use of the network are prescribed in the Protocol, providing no latitude for grid owners/operators to place barriers in front of or discriminate against users.

²⁷ Sustainability Victoria, 2010, *Sustainability Victoria – Distribution Generation Connection Experiences Analysis*, available: www.sustainability.vic.gov.au.

²⁸ Ibid, p. i.

²⁹ National Grid Management Council, 1993, *The Structure of an Interstate Transmission Network for Eastern and Southern Australia*, p-p. 29-30.

³⁰ Ibid, p. 29.

³¹ Ibid, p. A1.



Clearly the NER were intended to underpin the connection process by prescribing it to a significant degree to ensure that no barriers could prevent efficient access. While this process is now detailed in Chapter 5 the NGMC's intent is completely unclear in the Chapter 5A negotiated connection process for EG. This rule change proposal seeks to rectify this issue by outlining a prescribed framework with the intent to increase efficiencies by clearly defining information transparency and the roles and obligations of each party.

2 Statement of Issues

The new Chapter 5A connection process appears to have been largely designed by the MCE on an administrative basis³². It proposes a ‘minimum disturbance’ approach to current practices, despite these practices presenting a wide range of issues. Its treatment of a *non-registered embedded generator* connection in the same manner as a load connection is inadequate as generators are not subject to the same market conditions as loads. As a result it fundamentally lacks the technical perspective needed to connect EG efficiently.

The CEC expects that, while Chapter 5A remains non-prescriptive for negotiated connections, this will remain the logical default process for most, if not all, new *non-registered embedded generator* connections. Despite this, as discussed previously, in relation to negotiated connections it is entirely unclear that the MCE’s intent has been met through the introduction of Chapter 5A.

The CEC presents the following issues identified with the Chapter 5A negotiated connection process.

2.1 Misaligned negotiated connection processes

A flowchart for the current Chapter 5A connection process is shown in Figure 1.

As written Chapter 5A only provides a high level outline of the negotiated connection process. During the development of the recommendations which underpinned Chapter 5A Allens Arthur Robinson considered a highly prescriptive approach³³. During consultation submissions from DNSPs indicated that the NER should be limited to a high level framework only and subsequent recommendations supported this³⁴.

Given the considerable issues which have been documented since the drafting of Chapter 5A the CEC believes that it is significantly under-prescribed. It is vague to the extent that it has made no material improvement to current negotiated connection arrangements and has removed some of the fundamental components of the connection process seen in Chapter 5. It is therefore insufficient to efficiently capture the needs of an efficient process.

At a high level the reason for this is a misalignment between the functional connection framework outlined by Chapter 5A, and that which comprises an efficient practical process.

The Chapter 5A process: DNSP determination of connection requirements

³² 2009, MCE, *National Energy Customer Framework, Second Exposure Draft*, p. 16, available: www.mce.gov.au.

³³ 2006, Retail Policy Working Group, *National Framework for Distribution and Retail Regulation*, p. 66, available: www.mce.gov.au.

³⁴ The AEMC should take note of the participants which took part in that consultation process in order to appreciate how this outcome was realised.

The Chapter 5A connection process for negotiated connections does not recognise the importance of the development of a connection application as it applies to the determination of connection requirements and associated costs. In assuming that the DNSP alone will determine the technical requirements and costs for the connection³⁵ Chapter 5A absolves the DNSP from any need to work with the *connection applicant* for an integrated connection solution.

As recognised by the AEMC the regulatory frameworks do not incentivise DNSPs to efficiently connect EG³⁶. Negotiated *connection applicants* face considerable financial risk and uncertainty from the connection process as it is applied today and Chapter 5A has made no attempt to resolve this.

The CEC considers that DNSPs are not always the most efficient parties to coordinate technical matters between the connection requirements and project design. Further, the functional Chapter 5A process does not envisage the opportunity for market forces to deliver efficiencies or innovative solutions. As a result the CEC doubts that the functional connection framework outlined by Chapter 5A has made any advancement of the NEO in relation to the efficiency of EG connections.

An efficient practical process would enable a *connection applicant* to fully consider and understand the commercial implications of the proposed connection during the development of a suitably formed connection application which is acceptable to both parties. Such a framework is recognised to a large extent by the current Chapter 5, yet there is no such acknowledgement in Chapter 5A.

Chapter 5A appears to expect that a proponent has already determined all plant parameters and is willing to accept the cost associated with the connection prior to lodging an application. The proposed generating plant would not be able to be considered in light of network characteristics prior to this. The CEC expects that under this framework many applications would be lodged for projects that either need revising, tailoring or closing. As this would only be revealed once the applicant had invested significant resources this approach is expected to be costly for *connection applicants* and inefficient for both parties.

This approach is inconsistent with a proactive arrangement whereby the connection application is organically developed as technical challenges are considered and resolved. The Chapter 5A process does not appear to permit a negotiated *connection applicant* to undertake preliminary assessments to determine a likely connection cost or to make adaptive 'tailoring' changes to their generating plant, whilst acknowledging the necessary technical requirements for connection.

As Chapter 5A makes no attempt to allow the proponent to manage their own connection process, or fully understand the risks faced by technical limitations, it is unlikely that this functional approach will advance the NEO.

³⁵ Chapter 5A, cl. 5A.C.3(5).

³⁶ AEMC 2011, *Inclusion of Embedded Generation Research into Demand Management Incentive Scheme, Rule Determination*, 22 December 2011, Sydney, p. 11, available: www.aemc.gov.au.

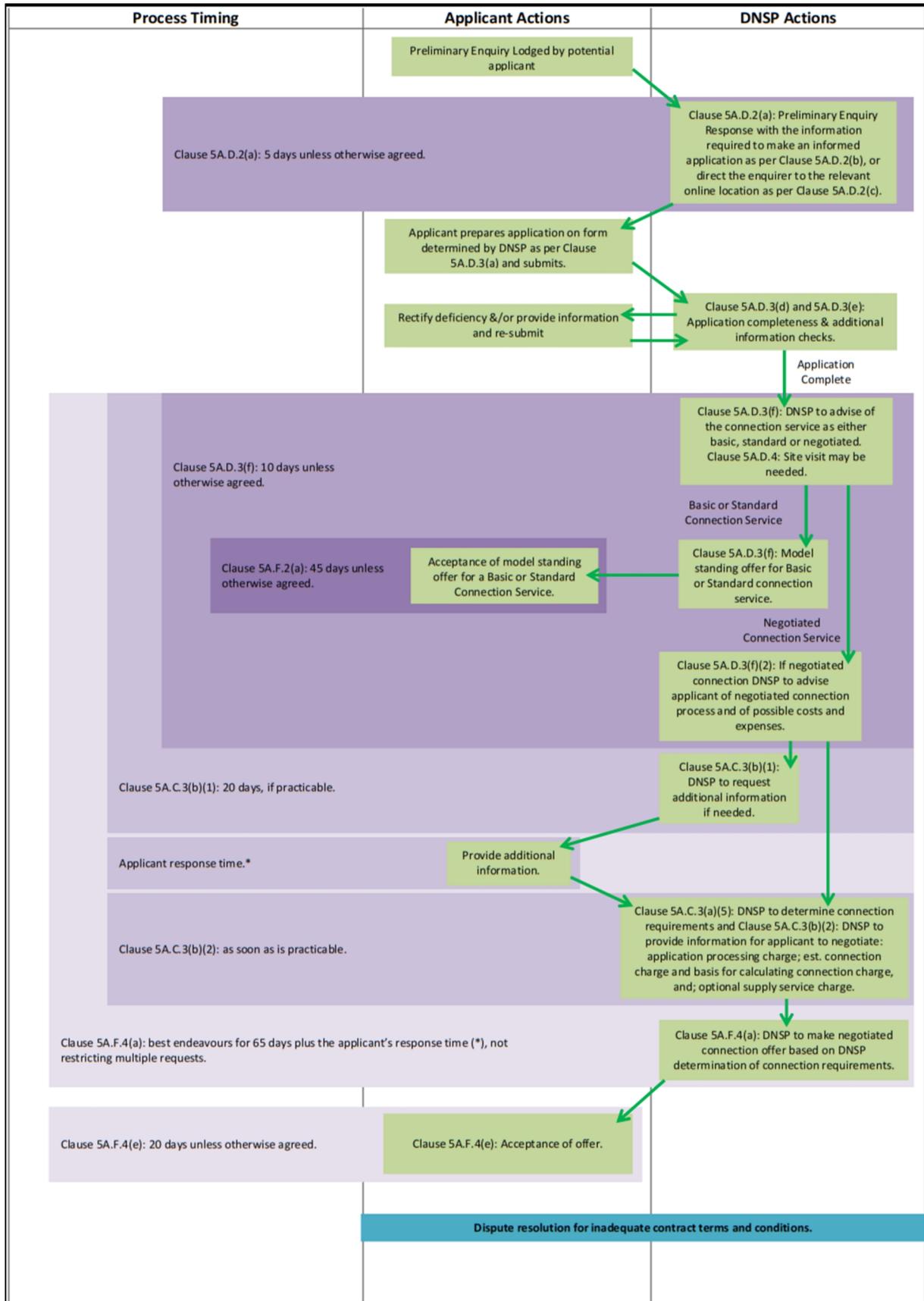


Figure 1: Chapter 5A connection process for basic, standard and negotiated connection applications.

2.2 Network access provisions

Schedule 5A.1 Part A(a)(2) states that a connection offer must amongst other things contain “*the maximum capacity of the connection*”. Clause 5A.C.3(6) requires the DNSP to provide the *connection applicant* with an offer “*that complies with the applicant’s reasonable requirements*”. However, Chapter 5A does not obligate the DNSP to consider connection agreement terms in light of the *network’s power transfer capability* – this is only defined as the capacity of the generator’s *connection*³⁷.

Conversely, one of the stated purposes of the Chapter 5 connection process for registered generators is “*to address a connection applicant’s reasonable expectations of the level and standard of power transfer capability that the relevant network should provide [own emphasis]*”³⁸.

This subtle difference means that Chapter 5A absolves the DNSP of any responsibility to meet the expectations of *connection applicants* with regards to their ability to assess the level of risk faced by changes in *power transfer capability*. Furthermore, it also removes any responsibility to account for this capability during the DNSPs planning decision making processes. As a result future decisions made by the DNSP could reduce the initial capacity available to the generator at the time its investment was made, while placing no obligation on the DNSP to make a conscientious assessment of any impacts.

While, under the current open-access regime in the NEM neither Chapter 5 nor Chapter 5A should provide a guarantee for network capability³⁹, the NER needs to provide for NSPs to make conscientious assessments of the *power transfer capability* of their networks in order to properly manage risks faced by all *Network Users*.

The NER should be consistent and clarify that the DNSP must take some responsibility in advising a connection applicant of the risks that are present from changes to their *network’s power transfer capability* as a result of the DNSP’s network planning or operation, or the interaction with a concurrent connection application.

2.3 Information provision

Chapter 5A does not acknowledge the importance of the commercial and technical information required to support the negotiation process. It therefore fails to support the fundamental NER “negotiate / arbitrate” framework.

The Chapter 5A negotiation framework considers that the *connection applicant* must provide the DNSP with “*...the information it reasonable requires in order to negotiate on an informed basis*”⁴⁰.

³⁷ Chapter 5A, Schedule 5A.1 Part A(a)(2).

³⁸ Chapter 5A, cl. 5.1.2(a)(2)(iii)

³⁹ Note that Chapter 5 draws no relationship between *power transfer capability* and a guarantee of access, only an *agreement* between the DNSP and the connection applicant can create this relationship.

⁴⁰ Chapter 5A, cl. 5A.C.3

The same clause then goes on to state that the DNSP must provide “...*information the connection applicant reasonable requires in order to negotiate on an informed basis...*”. The information provided to the applicant then includes a connection application assessment and offer preparation fee, connection charge estimates and the basis for estimating these charges and other charges for supply services if applicable.

No further requirements are in place for the provision of any other information to a *connection applicant*, technical, commercial or otherwise. This implies that under the NER a DNSP does not have to provide the applicant with the information required to assess the technical, and subsequently financial, implications of a connection. Despite this lack of visibility the applicant is expected to negotiate the costs proposed by the DNSP in order to secure a *negotiated connection contract*.

In addition to the above Chapter 5A provides multiple opportunities for the DNSP to request information. In addition to the *preliminary enquiry* at the start of the process clause 5A.D.3(e) allows the DNSP to request additional information to assess the application and identify the type of connection service sought. In addition, the negotiating framework then allows the DNSP to request more information from the applicant (clause 5A.C.3(b)(1) & (b)(2)) where the wording in these clauses does not restrict multiple requests. The CEC believes that, since the application content is determined by the distributor in the first instance it should outline sufficient information requirements from the applicant and multiple requests should be limited a result (the relationship of these requests with process timing is discussed later).

The CEC considers that when these matters combine the approach is so far removed from current intent of Chapter 5 that its entry into the NER has the potential to promote subjective decision-making and discourage significant future investment in EG.

2.4 Negotiation framework

The NER “negotiate / arbitrate” framework envisages negotiations between two parties which hold countervailing market power and who are both informed and see equal incentives. It is widely understood that this is rarely the case in practice. Chapter 5A has made significant advances to remove the essential supporting mechanisms which *connection applicants* would otherwise be afforded through Chapter 5. The only related provision in Chapter 5A is that of negotiations in ‘good faith’, which to date has seemingly proven inadequate.

Clause 5A.C.3(a)(5) states that the DNSP must determine “*the technical requirements for the proposed new connection or connection alteration...*”. Clause 5A.C.3(a)(3) indicates that only connection costs are applicable to the negotiation process. Alternative or cheaper connection designs can be considered in the negotiation *if* the DNSP elects to propose them.

Under Chapter 5A the DNSP retains all of the information and negotiations are limited to connection costs over which the applicant has limited access to detail and therefore no visibility to negotiate effectively. Concurrently, the DNSP has no incentive to reduce connection costs for the applicant by considering alternative solutions. It is difficult to see how this is in fact a negotiation as negotiations

could remain inaccessible to the applicant, opaque and controlled by the DNSP should it choose to do so. Countervailing market power will only exist to the extent that the DNSP has provided information it wishes to.

The CEC believes that objective of an equally balanced negotiation framework is to balance the goals of *connection applicants* and DNSPs. The NEO is best met when this is achieved with economic efficiency, which a defined negotiating framework *must* be sufficient to reveal.

This objective is not evident within the Chapter 5A negotiation framework. Rather, it supports an approach whereby the connection requirements and subsequent costs are developed opaquely and outside of the control of *connection applicants*, thus failing to appropriately manage the same imbalanced objectives which have been recognised by the MCE⁴¹ and used previously as a rationale for rule changes by the AEMC⁴².

In conjunction Chapter 5A outlines the minimum content for a connection agreement involving EG. This does not extend to a limitation on the generator's liability. For most generation projects a finalised connection agreement is a precondition for project finance. Clearly a connection agreement which exposes the generator to unlimited liability is an unacceptable risk. It can place a significant and unnecessary additional cost on obtaining finance and therefore is highly unlikely to advance the NEO.

2.5 Process timing

The Chapter 5A connection process closely links process timing to the flow of information. While this is not unreasonable (and supports the current Chapter 5 arrangements) Chapter 5A uses terminology such as "*best endeavours*"⁴³ and "*as soon as is practicable*"⁴⁴.

Experience shows that negotiated connections routinely take 6 to 12 months (and longer) to reach the offer stage. This indicates that although the current prescribed periods are acceptable in length, the rules may not support their reasonable application.

The process is often misaligned with external project contracts. Stalled connection processes can have significant implications on project costs and viability. As with any development certainty is required to manage risk and ensure efficient investment. In the absence of timeline certainty the risk and costs can increase for all parties, although in this instance a *connection applicant* would be significantly more exposed than a DNSP.

As indicated previously Chapter 5A provides multiple opportunities for the connection process to stall as a result of information requests from the DNSP. In addition to the *preliminary enquiry*, clause

⁴¹ MCE, 2010, *Rule Change Request: Inclusion of Embedded Generation Research into Demand Management Incentive Scheme*, p. 4, available: www.aemc.gov.au.

⁴² AEMC 2011, *Inclusion of Embedded Generation Research into Demand Management Incentive Scheme, Rule Determination*, 22 December 2011, Sydney, p. 1, available: www.aemc.gov.au.

⁴³ Chapter 5A, cl. 5A.F.4(a).

⁴⁴ Chapter 5A, cl. 5A.C.3(b)(2).

5A.D.3(e) allows the DNSP to request additional information at the start of the process to assess the application and identify the type of connection service sought (no time limit applies). The applicant response time then delays the process under clause 5A.D.3(f). The negotiating framework then allows the DNSP to request more information from the applicant within 20 days from the receipt of the application, *if practicable* (clause 5A.C.3(b)(1)), where the response time delays the making of the offer.

There is no restriction on multiple requests from the DNSP with each request either stalling the release of the information that the applicant requires to negotiate (as per clause 5A.C.3(b)(2)), or stalling the delivery of the connection offer under (clause 5A.F.4(a)). The assertion underpinning this process is that every piece of information required by the DNSP creates a barrier to the assessment of all aspects of a connection application. In practice this is rarely the case.

The CEC believes that, since the application form and content is determined by the DNSP in the first instance it should outline sufficient information requirements to restrict the relationship to process timing. Subsequently, the issue of repeated information requests stalling the connection process should be managed by requiring that the DNSP clearly outlines what information is needed from the applicant. Any delays in making an offer should be strictly limited to delays in the provision of critical path information only.

2.6 Charging

Clause 5A.E.1(c)(4) provides a mechanism whereby DNSPs can charge negotiated *connection applicants* for augmentation to the network on the basis that it is needed for *forecast load growth*. Clause 5A.E.1(d) then provides a mechanism for the applicant to recover some of these charges within 7 years *if* sufficient new load connects, as determined subjectively by the DNSP.

Current market design assumes that the NEO is best met by offering financial incentives for NSPs to undertake *network* planning and development for demand growth, while generation is not made subject to a use-of-system charge it is not considered within this planning process. Yet, the provisions described above create the opportunity for DNSPs to transfer the financial risk of *network* expansion for load growth to embedded generators, which is entirely inconsistent with current market design. This is unworkable as it confuses the responsibilities of the parties involved creating counterproductive incentives for both *network* investment and connections.

Further, as discussed Chapter 5A is vague about information transparency and *connection applicants* do not have access to a DNSP's planning information. Ultimately *connection applicants* may not be provided a fair and reasonable understanding of a DNSP's proposed connection costs and may remain incapable of establishing an understanding of the need for a charge in relation to managing expected load growth, or contesting it if it is applied by a DNSP.

This anomaly has the capacity to substantially increase connection costs in some cases and should be reconsidered, particularly in light of the findings of the VCEC discussed previously.

3 Proposed Solution: An Appropriate Framework for Integrated Connection Solutions

The proposed changes to the Chapter 5A negotiated connection frameworks will address the issues outlined above and by previous bodies of work by:

1. Realigning the functional process to that which represents an efficient practical process. This will mostly be achieved by aligning the Chapter 5A process with the Chapter 5 process.
2. Reducing information asymmetry by requiring DNSPs to provide information to negotiated *connection applicants*.
3. Enabling negotiated *connection applicants* to consider their own objectives by developing their project in light of network characteristics and clear technical standards from the DNSP.
4. Providing negotiated *connection applicants* with access to market forces for the development of technical aspects of the connection within timelines largely controlled by the applicant.
5. Streamlining DNSP assessment of negotiated *connection applications* in order to reasonably control connection timeframes.
6. Reducing risks faced by negotiated *connection applicants* by
 - a. controlling costs by limiting them to those which can be determined from information provided by the DNSP;
 - b. removing the capacity for a DNSP to pass on the financial risk of load related augmentation;
 - c. enabling vision of costs at an early stage, and;
 - d. enabling economically rational decision making by proponents at the appropriate project stages.
7. Evening out negotiation positions through accountability for information provision, connection costs and expectations.
8. Enhancing risk management for investment in EG projects by ensuring that Chapter 5A properly accounts for the obligation of DNSPs to consider the *power transfer capability* of their networks and the interaction with other *Network Users*, while also ensuring fair and reasonable contractual terms for EG projects.

The CEC expects that the solutions proposed here will both remove barriers to EG investment and complement the MCE's and AEMC's objective of promoting innovation⁴⁵. Further, the CEC expects that the proposed changes will make significant progress in supporting the MCE's intent for Chapter 5A to provide a more streamlined approach to connections whilst ensuring that the connection applicant's requirements can be met in a fair and certain manner, and as quickly as reasonably possible⁴⁶.

Figure 2 shows the proposed revised process.

⁴⁵ AEMC 2011, *Inclusion of Embedded Generation Research into Demand Management Incentive Scheme, Rule Determination*, 22 December 2011, Sydney, available: www.aemc.gov.au.

⁴⁶ 2009, MCE, *National Energy Customer Framework, Second Exposure Draft*, p. 15, available: www.mce.gov.au.

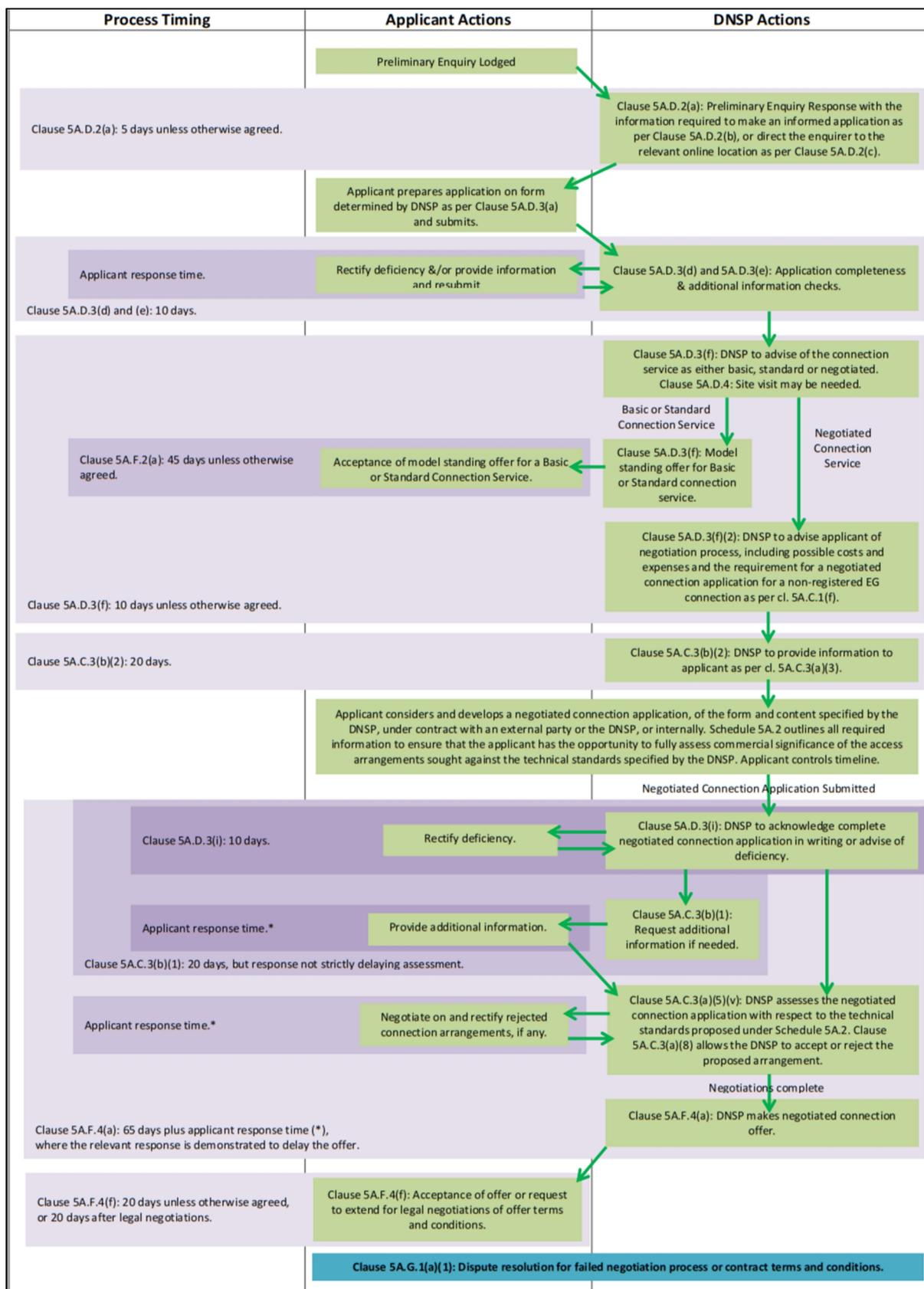


Figure 2: Updated Chapter 5A connection process focussing on negotiated connection applications for embedded generation.

3.1 Realigned negotiated connection processes

The CEC considers that an efficient practical process would enable the *connection applicant* to fully consider and understand the implications of the connection prior to lodging an application and negotiating the subsequent contract.

The proposed rule change would achieve this by defining a new *negotiated connection application* and *negotiated connection offer*. These definitions would remain specific to Chapter 5A. The *negotiated connection offer* relates to an offer made subsequent to the negotiating framework, while the *negotiated connection application* is specific to all negotiated connections involving EG. Combined these definitions support negotiations to obtain a *negotiated connection contract* through a reasonably defined negotiating framework.

The new *negotiated connection application* would be intended specifically for non-registered EG and the DNSP would be responsible for outlining its form and content, with the detailed response to be provided by the applicant. In conjunction the NER would be updated to state that any matter relevant to the connection is subject to negotiation.

This proposal would enable EG applicants to have greater control over the development of the *negotiated connection application* than is currently envisaged by Chapter 5A. An applicant would be able to undertake their own analysis to consider the commercial implications of the connection or make optimising changes to their generating plant or project, whilst acknowledging the DNSP's technical requirements.

This approach is expected to increase certainty in the connection process by enabling negotiated *connection applicants* to identify and manage risks accordingly at the appropriate stages.

Proposed rule changes

- Insert two new Chapter 5A specific definitions for a *negotiated connection application* and a *negotiated connection offer* and ensure that a *connection applicant* includes any person who submits the former to a DNSP.
- **Clause 5A.C.1 Negotiation of connection**
 - For clarity, in clause (a) specify that a negotiated connection requires a *negotiated connection contract* and expand subparagraph (a)(1) to clarify that this includes where a *negotiated connection application* is submitted to the DNSP.
 - Insert new paragraph (f) which will, in subparagraph (1) require that *negotiated connection application* be submitted for a new connection which includes a *non-registered embedded generator*; and in subparagraph (2) require the DNSP to determine the form and content of the *negotiated connection application* to be submitted.
- **Clause 5A.C.3 Negotiating framework**
 - Expand subparagraph (a)(1) by specifying that *any matter relevant to the connection* can be negotiated in good faith (consistently with NER clause 5.3.6(f)).

- **Clause 5A.D.3 Application process**
 - Expand paragraph (f) to clarify that the DNSP must notify the *connection applicant* of the need to submit a *negotiated connection application* where applicable.

3.2 Network access provisions

In light of the previous discussion in Section 2.2 the rule change proposes to incorporate one of the fundamental principles of the NER⁴⁷ whereby a *connection applicant* can seek *distribution network user access* arrangements.

The DNSP will then be obliged to use best endeavours to meet the *distribution network user access* arrangements sought by the *connection applicant*. As indicated earlier this would not be a guarantee of access⁴⁸. Rather the NER have to provide for a conscientious approach to inform a *connection applicant* or any other *Network User* of the risk of *power transfer capability* being affected, in accordance with fundamental NER principles.

The NER also need to provide a mechanism for DNSPs and negotiated connection applicants to consider the interaction between concurrent *connection applications* and to oblige DNSPs to advise on the impacts of any changes that affect an agreed *power transfer capability*.

Proposed rule changes

- **Chapter 10 Glossary**
 - Update definition of *distribution network user access* to relate to Chapter 5A along with Chapter 5.
- **Clause 5A.C.3 Negotiation framework**
 - Expand subparagraph (a)(4) to require a DNSP to consult with *Network Users* or other *negotiated connection applicants* who may be adversely affected by a proposed *negotiated connection application*.
- **Clause 5A.D.3 Application process**
 - Insert new paragraph (h) which, where a *negotiated connection application* is to be submitted, permits a *connection applicant* to seek *distribution network user access* arrangements including a level of *power transfer capability* (consistently with NER clause 5.5(d)).
- **Schedule 5A.1 Minimum content requirements for connection contract**
 - Expand Part B, subparagraph (a)(2) to state that a connection offer must include details of the level and standard of *power transfer capability* that the *network* will provide, including a description of the conditions under which the *network* will provide the stated

⁴⁷ NER Clause 5.1.2(a)(2)(iii)

⁴⁸ The provision of 'firm access' is a matter currently under consideration elsewhere by the AEMC.

power transfer capability. Delete the reference to the ‘*connection point capacity*’ as this is inconsistent with fundamental NER principles.

3.3 Information provision

The proposed rule change will reduce information asymmetry by prescribing the information required to achieve the appropriate level of countervailing market power envisaged by the NER “negotiate / arbitrate” framework. In doing so, the NER will acknowledge the significance of informed negotiations delivering efficient commercial outcomes.

As recognised by the MCE the “*distributor retains the ultimate responsibility for the provision of accurate network information and technical requirements*”⁴⁹. The revised Chapter 5A would efficiently support the applicant’s decision making processes by prescribing information to be released to it in accordance with the MCE’s direction.

The first part of the rule change proposed to achieve this would place accountability onto the DNSP to request the necessary information that the applicant must provide in the *connection application*. This will be done by removing the opportunity for additional information requests to stall the connection process (discussed in more detail in Section 3.5). The proposed changes also intend to recognise the importance of the information provided to support negotiations by making changes to the relevant information provision clauses in Chapter 5A to this effect.

The second part would clearly prescribe the information provided to negotiated *connection applicants*. The intention of this change is to incorporate the current arrangements under Chapter 5 into Chapter 5A (specifically, the current clauses 5.3.2(f), 5.3.3(c), 5.5(c)(2) and Schedule S5.2.4(e1) will be used to support enhanced information provision within Chapter 5A).

The rule change proposes to remove the uncertainty associated with information asymmetry by prescribing that the DNSP provide all the relevant information needed to support a *negotiated connection application* and subsequent negotiations. The trigger for the release of the information would be the DNSP’s acknowledgement that the connection will be subject to negotiation under clause 5A.D.3, at which point the DNSP will have to advise the connection applicant of the types and timing of information they will receive. The negotiating framework will subsequently define the information to be released.

Any changes to information provided to the applicant to prepare the *negotiated connection application* after its delivery would need to be notified in writing and the party identifying the change must show that it will have a material impact on the *negotiated connection application*. Both parties must accept that the change was not identifiable at the time the information was delivered and then agree to incorporate the change moving forward.

⁴⁹ Ibid, p. 17.

The CEC accepts that this is a significant change from the current Chapter 5A information and expects that this is justified. Some important aspects to be considered in support of this proposed approach include:

- A DNSP that publishes any of the information on its website, or where such information can be derived from relevant Australian standards or planning documentation, complies with its obligation to disclose information if it refers the enquirer to the relevant publicly accessible source.
- The proposal does not intend to require the collation of technical information above that which would be required should the DNSP be determining the technical requirements of the connection (as already intended by Chapter 5A⁵⁰). To this effect the rule change only brings forward the collation of information and makes firm provisions in the NER for the information to be provided to the *connection applicant*.
- The majority of the relevant network technical information is expected to be kept in a complete state by the DNSP for their planning purposes as per NER clause 5.2.3(d)(8). In conjunction, DNSPs are aware of the technical requirements for a connection on their networks and divulging this information to a *connection applicant* should be no more than a simple formality.
- The information will be deemed to be confidential as intended by NER clause 5.3.8 and as already intended for information exchanged under Chapter 5A.

In light of the above the CEC expects that the prescribed information would be provided free of charge to negotiated *connection applicants*.

Proposed rule changes

- **Clause 5A.C.3 Negotiating framework**
 - Expand subparagraph (a)(3) in recognition of the commercial importance of the technical information to be provided by the DNSP to the *connection applicant* in the need to assess the commercial significance of the *distribution network user access* arrangements sought and develop the *negotiated connection application*.
 - Insert a new clause (a)(3)(v) to require that the DNSP discloses all information required by the *connection applicant* and as outlined in Schedule 5A.2.
 - Delete note within clause (a)(3) suggesting that information provision should be at the DNSP's discretion.
 - Adjust clause (a)(5)(i) to require a DNSP to provide information on the technical requirements for connection, including the relevant technical standards, where a *negotiated connection offer* is sought.
 - Expand paragraph (c) to recognise that all information exchanged is *confidential information* as per NER clause 5.1.3(f).

⁵⁰ Chapter 5A, cl. 5A.C.3(a)(5)(i)

- **Clause 5A.D.3 Application process**
 - Expand paragraph (f) to obligate the DNSP to notify the connection applicant of the types of, and timing of the information they will receive at the time the DNSP acknowledges that the connection will be negotiated.
- **Clause 5A.E.1 Connection charge principles**
 - Insert a new subparagraph (c)(7) which describes the process for changes to the information provided to the connection applicant to support a negotiated connection application.
- **Schedule 5A.2 Information to be provided to support a *negotiated connection application***
 - Insert a new Schedule 5A.2, “Information to be provided to support a *negotiated connection application*”, which prescribes the information to be provided by the DNSP for the development of a *negotiated connection application*, along with a statement that the DNSP can elect to publish such information and direct the applicant to it.

This information would include:

- (a) The form and content of the *negotiated connection application* to be submitted and a good faith estimate of the cost for the *Distribution Network Service Provider* to process the application and provide a *negotiated connection offer*; and
- (b) The standard commercial terms to be incorporated in any subsequent *negotiated connection contract*; and
- (c) A statement for the need, or otherwise, for network studies to analyse the interaction of the proposed *non-registered embedded generator* with the *network* and to demonstrate compliance with the relevant technical standards; and
- (d) A proposal from the *Distribution Network Service Provider* to complete the *negotiated connection application* (including proposed costs, charges and timelines) and a corresponding statement notifying the applicant that they are free to complete the application independently; and
- (e) A statement describing any interaction between the *Distribution Network Service Provider’s* planning processes and the proposed project. For example, whether a proposed *embedded generator* could be used to mitigate local *network* investment; and
- (f) A statement as to whether the *embedded generator* will be considered under the *Distribution Network Service Provider’s* demand management and embedded generation connection incentive scheme, including any other relevant information to facilitate this; and
- (g) Where network studies are required the *Distribution Network Service Provider* must also provide all relevant technical information including, but not limited to:
 - (1) The *Distribution Network Service Provider’s* proposed technical standards including permissible limits for:
 - (i) voltage ranges at the proposed *connection point* and within the associated *network*; and
 - (ii) single and three phase fault levels at the proposed *connection point* and for relevant *network elements* as appropriate; and
 - (iii) voltage harmonic and voltage flicker emissions at the proposed

- (3) Technical specifications for any interface equipment required as a component of the proposed *generating system*, or within the property that contains the proposed *generating system*, including any arrangements to provide access to such equipment; and
 - (4) Network *control schemes* which can be reasonably expected to affect the *distribution network user access* arrangements sought by the *Connection Applicant*; and
 - (5) Switching and isolation facilities.
- (j) A *Distribution Network Service Provider* that publishes any of the information outlined in Schedule 5A.2 on its website, or where such information can be derived from relevant Australian standards or planning documentation, complies with its obligation to disclose such information if it refers the enquirer to the relevant publicly accessible reference.

3.4 Negotiation framework

The proposed rule change intends to facilitate countervailing market power order to ensure that the NER's intent for efficient outcomes can be realised. This will be achieved by enhancing the *connection applicant's* access to information and ensuring that the NER is clear about obligations. The proposal would enable the applicant to develop their application in light of the information provided in recognition of its own commercial objectives and against the technical limitations of the associated *network*.

Development of a *negotiated connection application*

Once the DNSP acknowledges that the application will be negotiated, the applicant would receive the required information and then be able to undertake the development of the *negotiated connection application* independently, through a contract with a specialist engineering consultant or engage the DNSP to do so. As discussed in Section 3.1 this approach means that the *connection applicant* could develop the project in light of network limitations more efficiently. In conjunction, competitive tension will allow the connection applicant to control this timeframe.

Ultimately, the intent of the *negotiated connection application* and prescribed information is to enable the applicant to make commercial decisions externally to the defined NER processes and with sufficient information to expect that the DNSP will reasonably consider the application once complete. This approach is very similar to the Chapter 5 framework and the proposed rule change draws on the intent of the current NER clause 5.3.4A here.

Proposed rule changes

- **Clause 5A.C.1 Negotiation of connection**
 - Require that a negotiated connection requires a *negotiated connection contract* and expand subparagraph (a)(1) to clarify that this includes where a *negotiated connection application* is submitted to the DNSP.
 - Insert new paragraph (f) which will, in subparagraph (1) require that *negotiated connection application* be submitted for a new connection which includes a *non-registered embedded generator*; and in subparagraph (2) require the DNSP to determine the form and content of the *negotiated connection application* to be submitted.
- **Clause 5A.C.3 Negotiating framework**
 - Insert new clause (a)(5)(v) to require a DNSP to consider the technical merit of the connection arrangements proposed in a *negotiated connection application*, or determine the technical requirements as requested by the *connection applicant*.

Submission of a *negotiated connection application*, negotiation and acceptance of the *negotiated connection offer*

The proposed rule change carries the current intent of NER clause 5.5(d) into an updated Chapter 5A negotiating framework. Under this change the NER would recognise that the applicant would be funding all *connection* costs and carries all of the risk associated with any limitations on generation export. As a result the DNSP must be obliged to consider the *distribution network user access* arrangements sought by the *connection applicant*, including the location of the *connection point* and the level and standard of *power transfer capability* that the relevant *network* will provide. These matters should remain at the discretion of the *connection applicant* and the DNSP must use reasonable endeavours to meet them throughout the negotiation process, as is already clearly intended by NER Chapter 5.

Once the applicant submits a *negotiated connection application* the DNSP would be obliged to accept that it is complete and subsequently charge the applicant to process it. The DNSP would be in a position to consider the proposed connection solution in light of defined technical standards and on technical merit. An option would remain for the DNSP to reject the solution, or parts of it, and propose alternatives under the condition that a rejection is accompanied by reasonable evidence and the DNSP proposes an alternative which will be accepted.

Once the *negotiated connection application* has been assessed and the DNSP agrees that their technical requirements have been met the DNSP must prepare a *negotiated connection offer*. This will include all other negotiable terms and conditions and a limitation on the embedded generator's liability⁵¹.

If requested by the *connection applicant*, the DNSP will be obliged to provide access to relevant legal personnel following the offer being made in order to properly and fairly facilitate negotiations of the *negotiated connection offer* terms and conditions.

⁵¹ Unnecessary costs imposed by unlimited liabilities were discussed in Section 2.4.

The proposal also serves to enhance access to the AER by *connection applicants*⁵² by including the obligations of Chapter 5A as relevant disputable matters. As the proposal also enhances the definitions of roles and responsibilities of the parties a determination from the AER would be soundly supported and could be made expeditiously.

Proposed rule changes

- **Clause 5A.C.3 Negotiating framework**
 - Expand subparagraph (a)(6) to state that the DNSP must use reasonable endeavours to provide a *negotiated connection offer* which meets the *connection applicant's* reasonable requirements, including the *distribution network user access* arrangements sought.
 - Delete the 'example' associated with subparagraph (a)(6). The NER needs to be clear that these matters are not *optional*.
 - Insert a new subparagraph (a)(8) which requires the DNSP to accept or reject the *negotiated connection application* or parts of it. When any part of the proposal is rejected the DNSP must provide sufficient evidence to reason the decision and advise of the adjustments which will lead to the DNSP accepting the relevant parts of it.
- **Clause 5A.D.3 Application process**
 - Insert new paragraph (i) which, where a *negotiated connection application* is to be submitted, requires a DNSP to either accept it as complete, or notify the *connection applicant* of any defects which must be rectified for the application to be re-submitted.
- **Clause 5A.F.4 Negotiated connection offer**
 - Expand paragraph (e) to require that, upon request, the DNSP must make reasonable endeavours to facilitate negotiations of the terms and conditions of a *negotiated connection offer* by providing access to the relevant legal personnel.
- **Clause 5A.G.1 Relevant disputes**
 - Expand relevant disputes to include disputes arising from the obligations of Chapter 5A.
- **Schedule 5A.1 Minimum content requirements for connection contract**
 - Insert new subparagraph (a)(14) which requires the *connection offer* to include the limitations of the *embedded generator's* liability.

3.5 Process timing

The proposed rule change provides for sufficient information exchange in order to fully support the DNSP's requirements for the *negotiated connection application*. As a result the DNSP's processing of it should be efficient with increased certainty for both parties. The following process timing improvements are included in the proposal.

⁵² This benefit is also acknowledged by the AEMC with regards to negotiated transmission services in the recent Second Interim Report for the Transmission Frameworks Review, p. 91.

Initial application stage

Clauses 5A.D.3(d) and (e) relate to the DNSP requesting information or notifying of a deficiency in the initial connection application. Contrary to all other NER connection process requirements neither clause provides any limitation on the timing of this request. The proposed rule change will place a 10 business day time limit on them.

Provision of information

Clause 5A.D.3(f) currently requires that the DNSP notify the applicant within 10 days that the connection will be a basic, standard or negotiated connection service. This would be expanded to require that, for an EG related negotiated connection service the DNSP will also notify the applicant of the types of information that the connection applicant will receive and the timing of this information (see Section 3.3).

Clause 5A.C.3(b)(2) will require that the information required to develop a *negotiated connection application* (as outlined in the new Schedule 5A.2) will be provided within 20 days after the DNSP identifies that a *negotiated connection contract* is required. This proposed change is aligned with that prescribed by NER clause 5.3.2 for the connection enquiry response.

Also in clause 5A.C.3(b)(2) the timing relationship between the provision of additional information by the *connection applicant* and the release of information by the DNSP will be removed. The DNSP has already received a preliminary enquiry and had the opportunity to request additional information through clause 5A.D.3(e) in the initial application stage. Any further requests for information at this stage should be disconnected from the timing of the release of the information which the applicant requires to negotiate. The DNSP should be made accountable for requesting the correct and complete information that it needs in order to provide the information which the applicant requires to negotiate.

Preparation of the *negotiated connection application*

The rule change proposes that the timeframe under which a *negotiated connection application* is developed would be external to the timeframes prescribed by Chapter 5A. The proposed approach enables the applicant to control this timeframe with commercial pressures applied to drive efficiencies.

DNSP acceptance of the *negotiated connection application*

Once the *negotiated connection application* is submitted the DNSP would be provided with a 10 day period to accept its completeness, or request that defective or missing information is resubmitted. The DNSP would be responsible for prescribing the form and content of the *negotiated connection*

application. As a result the risk of delay should be very low and the DNSP should be able to process the application efficiently⁵³.

Negotiation

Once the *negotiated connection application* has been submitted the DNSP would have 65 business days to consider and accept or reject all, or any part of it, and prepare the *negotiated connection offer*⁵⁴. If any part of the application is rejected the DNSP must provide detailed reasoning for the rejection and advise of the necessary adjustment(s) to rectify it, or the relevant technical standard which the DNSP will accept. The applicant must then reconsider their application in light of advice from the DNSP and resubmit the appropriate changes.

The 65 day period will be fixed. However, any response time that the *connection applicant* needs can be added to it where this response is determined to be timeline-critical. As already intended by Chapter 5A (clause 5A.F.4(a)) a timeframe ‘reset’ option will not be available. This arrangement also proposes deemed acceptance of the *negotiated connection application* should the 65 day period lapse without appropriate response from the DNSP.

Acceptance of a *negotiated connection offer*

A *connection offer* will remain open for 20 business days as already stated by clause 5A.F.4(e). The *connection applicant* can request access to the DNSP’s legal personnel in which case the offer shall remain open for 20 business days after this request has been met.

Arbitration

If agreement cannot be reached or either party feels that the other has not followed the procedure accordingly, the AER arbitration process can then be applied. As noted previously the NER would be more prescriptive and arbitration should be both more accessible and expeditious.

Proposed rule changes

- **Clause 5A.C.3** **Negotiating framework**
 - Alter subparagraph (b)(1) to require (thus removing the term “*if practicable*”) a DNSP to request additional information from a *connection applicant* within 20 business days after receiving any *connection application* or *negotiated connection application*, as the case may be.

⁵³ Note the above comment on placing accountability for the content of the application onto the DNSP also.

⁵⁴ Noting that the offer must be made within the 65 day window.

- Alter subparagraph (b)(2) to require that the DNSP provides all information relevant to negotiations within 20 business days after the DNSP acknowledges that a *negotiated connection contract* is required.
- Delete those parts of subparagraph (b)(2) which relate the information relevant to negotiations to an additional information request from the DNSP. The DNSP has had two prior opportunities to request additional information and the DNSP should ensure that the *connection application* outlines sufficient detail of the information to be provided by the applicant in the first instance.
- **Clause 5A.D.3 Application process**
 - Place a 10 business day time limit on the DNSP's request for additional information, or notification of defective information in the initial application requirements of paragraphs (d) and (e).
 - Include in paragraph (i) the obligation to accept, or notify of any defects in the *negotiated connection application* within 10 business days of its receipt.
- **Clause 5A.F.4 Negotiated connection offer**
 - Expand paragraph (a) to include that the *negotiated connection offer* must be made within 65 days following the submission of a *negotiated connection application*. Any time taken for the *connection applicant* to provide additional information or amend any rejected components of the application can only extend this timeframe if the relevant response is demonstrated to materially delay the making of the offer.
 - Insert new paragraph (b) which states that the DNSP shall be deemed to accept the *negotiated connection application* should the 65 day period lapse without appropriate response as required by the negotiating framework or application process.
 - Expand paragraph (e) to require that, if requested, the *negotiated connection offer* will remain open for a further 20 days after the DNSP has provided access to the relevant legal personnel.

3.6 Charging

The proposed rule would disallow a fee to be charged by the DNSP to cover the cost of negotiation and processing a *negotiated connection application* until the DNSP advises the connection applicant in writing of its completeness. The fee shall be accompanied with a breakdown of time and material expenses to process the application and provide the *negotiated connection offer*.

The *negotiated connection offer* will include all relevant negotiable information including:

- A scope of work required to facilitate the connection;
- An estimate of connection charges and a statement of the basis on which they are calculated;
- The terms and conditions of the *negotiated connection contract*; and
- A connection cost breakdown including:
 - *network augmentation and/or network extension* costs;
 - *connection asset* costs, and;
 - any other incidental costs.

- A detailed description of any ongoing operation and maintenance costs and charges, and the associated schedule of works.
- An explanation of any divergence from estimated costs already provided.

A restriction on charging for the provision of information will be included on the basis that the NER expects that such information is complete, accurate and readily available. The rule change proposal also expects that deviations from estimates are fully explained with final costs.

Within the intent of clause 5A.C.3(a)(1) for negotiations in good faith, the information provided to the applicant would subsequently be the limit of the scope for any *connection assets, network extension or network augmentation* costs included in a *negotiated connection offer*.

The rule change also proposes to remove any capacity for a DNSP to charge a *negotiated connection applicant* for augmentation related to expected load growth. The basis for this change is the obfuscation of the responsibilities of the parties as discussed in Section 2.6.

Proposed rule changes

- **Clause 5A.C.4 Fee to cover the cost of negotiation**
 - Insert new paragraph (c) which restricts charging for the provision of information to the connection applicant on the basis that the NER already expects the DNSP to have such information in a complete and accurate state.
 - Insert new paragraph (d) to disallow a fee to be charged to *connection applicants* who are required to submit a *negotiated connection application*, until after the DNSP has advised that the *negotiated connection application* as complete.
 - Insert new paragraph (e) which will require that the fee will be accompanied by a breakdown of the basis on which it was calculated including labour, time and other expenses along with an explanation of any divergence from the estimate provided initially under clause 5A.C.3.
- **Clause 5A.E.1 Connection charge principles**
 - Alter subparagraph (c)(4) to remove the ability for a *non-registered embedded generator* to be charged for *augmentations* related to forecast load growth.
 - Insert a new subparagraph (c)(7) which limits costs for *connection assets, network extension* and *network augmentation* which a *negotiated connection application* can be made subject to those which can be identified by the information provided by the DNSP.
- **Clause 5A.E.2 Itemised statement of connection charges**
 - Expand rule to ensure that all costs are accompanied with an explanatory statement of their basis of calculation.
 - Insert new paragraph (a) which requires the DNSP to provide a scope of work to which *connection charges* shall apply.
 - Relocate paragraphs (a) and (b) (to (b) and (c) respectively) and expand to include a statement of connection charges, a scope of work, details of the basis on which charges

were calculated and equipment cost breakdowns including *network extension*, *network augmentation* and *connection asset* costs, any other incidental costs.

- Insert a new paragraph (d) to include a breakdown of any ongoing operation and maintenance costs, the basis on which they were calculated and an associated schedule of works.
- Insert new paragraph (e) which requires that the DNSP explain any divergence from any cost estimate provided as part of the negotiation framework.
- **Clause 5A.F.4 Negotiated connection offer**
 - Expand paragraph (d) (redesignated (e)) to ensure that a *negotiated connection offer* must not include a charge which is inconsistent with Chapter 5A.

3.7 Minor changes

The proposed rule change also makes a number of minor changes as necessary to support the above changes, and for clarification and consistency with other NER chapters.

Proposed minor rule changes

- Clarify the definition of *premises connection assets* to avoid confusion and ensure consistency with the NER's definition and use of the defined term '*connection asset*'.
- Update paragraph 5A.C.3(a)(3)(i) and clause 5A.F.4 to ensure consistency with the newly defined *negotiated connection offer*.
- Minor changes to clauses 5A.C.3(a)(5) and 5A.C.4(a) and (b) to accommodate other proposed changes.
- Minor change to clause 5A.E.1(c)(2) for clarification and consistency with the NER.
- Minor change to paragraph 5A.E.3(c)(6)(i) to avoid ambiguity as the NER does not contemplate an '*extension asset*'. This asset would simply form part of a *network extension* and would be a *network asset*.

In conjunction the CEC notes that there are a large number of incidences within Chapter 5A where defined terms are not italicised or wording is unclear (one example is the defined term '*negotiated connection contract*' which is often only partly italicised). The CEC requests that the AEMC reviews Chapter 5A to resolve these ambiguities and ensure the chapter is consistent with the rest of the NER.

4 Proposed Rule

Appendix B contains the proposed rule description. It serves to provide a summary of the previous descriptions of the proposed changes in the order they would appear within Chapter 5A to provide clarity.

4.1 Implementation

Crucially, the proposed changes do not change the fundamental nature of the negotiation process or connection under the negotiated connection framework. Rather they focus on enhancing the process and enabling the process to reveal the greatest efficiencies. On this basis implementation effort should be limited to updating DNSP processes and documentation.

The proposed rule change has a high reliance on the provision of information. Importantly, the provision of technical information should be no more onerous than would be required by the DNSP to collate it should the DNSP be determining the technical requirements of the connection as currently envisaged by Chapter 5A⁵⁵. To this effect the rule changes relating to the provision of information only bring forward the collation of information and make provisions for the information to be delivered to a negotiated *connection applicant*.

The majority of the technical information is expected to be kept in a complete state for planning purposes as per NER clause 5.2.3(d)(8). In conjunction DNSPs are well aware of the technical requirements for a connection and divulging this information to a *connection applicant* should be no more than a formality. In many cases it is already readily available but is only accessible through various DNSP departments.

There will be a need for a DNSP to develop clear technical standards where they have not done so already. However, this enables the DNSP to tailor such standards to the needs of their own networks and promotes efficiency by ensuring that *connection applicants* have clear and concise obligations. DNSPs are best placed to develop these standards as they are the parties with the requisite information. Should consistent national standards for the connection of EG be created then the DNSP can simply provide these instead.

In light of the above the CEC expects that information would be provided free of charge. Further, most DNSPs will agree to provide the required modelling information to applicants if requested under the current connection frameworks. Some already state that this arrangement is preferred. On this basis the proposed rule changes mostly codify current practices by clearly defining the roles and obligations of parties to enhance certainty and reduce risks.

⁵⁵ Chapter 5A, cl. 5A.C.3(a)(5)(i)

DNSPs will be required to collate the required information needed to support *negotiated connection applications*. However, in light of the above the CEC considers that this would require minimal implementation effort when compared to the potential process streamlining benefits.

The additional obligations placed on DNSPs will act as a deterrent to DNSPs selecting this process as the fall back from a basic connection service that is not ‘simple’ (see Section 1.2). The MCE intended that Chapter 5A created specific streamlined processes for basic and standard connection services. DNSP practices to date show that the lack of prescription in the current negotiating framework allows DNSPs to simply use this as a fall back option rather than to allow the MCE’s intent be met.

4.2 Transition

As noted in Section 1.2.1 three NEM states have not yet fully endorsed the NECF package. Two of these have deferred it to 2014, implying that in these jurisdictions this same timeline applies for preparation and transition to any changes to the NER resulting from this proposal. One NEM jurisdiction is uncertain.

Of those that have endorsed the NECF only South Australia and Tasmania have documented the connection process to sufficient detail to consider transitional implications accurately. As documented the South Australian process will require some adjustment⁵⁶. However, this adjustment will reveal the benefits proposed here should this proposal be implemented.

The process subsequent to this proposal would be closely aligned to the Tasmanian process⁵⁷, indicating that minimal transitional effort will be required there. It appears that the process in the ACT will be closely aligned with that in Tasmania however the relevant documentation is not comprehensively aligned with Chapter 5A at this stage⁵⁸. Therefore the CEC expects that minimal transitional effort will be required.

Minimal issues would appear at the time of transition as only *non-registered embedded generator* connection applications received after the implementation of Chapter 5A would be subject to this rule change, as will be the case regardless.

4.3 Draft amendments

The proposed draft amendments to Chapter 5A are outlined in Attachment A based on NER version 52. In conjunction the rule change proposes to update the definition of *distribution network user access* as below, and as previously noted in Section 3.2.

⁵⁶ SA Power Networks, 2013, *Large Embedded Generator User Guide B*, p-p. 20-22, available: www.sapowernetworks.com.au.

⁵⁷ Aurora Energy, 2012, *Guidelines for the Connection of Embedded Generation to the Aurora Distribution Network*, p-p. 22-28, available: www.auroraenergy.com.au.

⁵⁸ ActewAGL, 2012, *ActewAGL guidelines for photovoltaic (PV) installations up to 200kW connected via inverters to the ActewAGL network*, available: www.actewagl.com.au.



distribution network user access

The *power transfer capability* of the *distribution network* in respect of:

- (a) *generating units* or a group of *generating units*; and
- (b) *network elements*,

at a *connection point* which has been negotiated in accordance with rule 5.5 or rule 5A.C.3.

5 Interaction with the AER's Connection Charge Guidelines

The proposed rule change makes some minor changes to rules 5A.E.1 and 5A.E.3 which are referenced within the AER's Connection Charge Guidelines⁵⁹. Following a review of the Guideline the CEC believes that the impact of this proposal will be limited to cosmetic changes, including:

- Very minor changes to clauses 5A.E.1(c)(2) and 5A.E.3(c) which will have no material effect on the AER's intent for the guideline.
- The removal of charges for load-related augmentation for *non-registered embedded generators* connecting under a negotiated connection in clause 5A.E.1(c)(4). The CEC was unable to find a reference to this within the guideline in relation to EG, which indicates that the change will have no material impact on the AER's intent at the time the guideline was developed.
- Insertion of a new clause 5A.E.1(c)(7) which limits charges for negotiated connections to those which can be determined through the information provided to the *connection applicant*. The treatment of negotiated connections within the guideline is not expected to require any material change resulting from this amendment. The guideline already clearly states that these charges must be in accordance with Chapter 5A⁶⁰ which would inherently include any changes subsequent to this proposal.
- Updated definition of *connection applicant* to include a person who submits a *negotiated connection application*⁶¹.

The CEC expects that it is only the references to the NER (pages 4-6) and the definition of *connection applicant* (page 29) that require updating as a result of these proposed changes. The CEC has been unable to identify any contradiction between the proposed changes and the AER's intent when the guideline was developed.

⁵⁹ AER, 2012, Connection charge guidelines for electricity retail customers, available: www.aer.gov.au.

⁶⁰ Ibid, p. 12.

⁶¹ Ibid, p. 29.

6 Interaction with Current Schemes which Facilitate Embedded Generation

Over recent times a number of issues have been considered and concluded by the AEMC which intend to improve the NEM's interaction with EG. This section considers the interaction between these matters and this proposed rule change. Noting that in most cases the changes have only recently been enacted, or are proposed. As their effectiveness has not been fully demonstrated this analysis can only be undertaken at a high level at the present time.

6.1 The Demand Management and Embedded Generation Connection Incentive Scheme

The CEC expects that the proposed rule change would complement the recently updated DMIS. This is because an approach whereby the generator proponent is able to fully consider and assess the opportunities and risks faced by them. In conjunction a more transparent assessment would enable the proponent to fully understand the value of any demand management benefits their project was facilitating.

The CEC also expects that this proposed rule change will complement the direction made by the MCE to enhance innovation in the connection of EG, while also enabling EG proponents to better integrate their projects within the appropriate technical standards.

6.2 Small Generator Aggregators

The proposed rule change serves a very different purpose to the Small Generator Aggregator registration category and is expected to complement it. While the AEMC's view is that this new registration category removes a clearly visible barrier to market entry⁶², the CEC expects that this proposed rule change would increase the transparency around the less visible barriers which exist in the connection process. Subsequently, connection should be more certain which would in turn also increase the efficiency of market entry for this category of market participant.

As a result this proposed rule change would complement the AEMC's view with regards to the benefits of Small Generator Aggregators.

⁶² AEMC, 2012, *Small Generation Aggregator Framework, Rule Determination*, 29 November 2012, Sydney, p. i, available: www.aemc.gov.au.

6.3 Distribution Network Planning and Expansion Framework

While the introduction of new planning processes for DNSPs provides a significant benefit to EG in the form of enhanced locational signals, the planning process does not envisage any changes to the connection *process*. The CEC expects that this proposal will codify improved arrangements for a more certain connection process for EG which has been promoted by the revised planning frameworks.

The CEC expects that opportunities for EG created with the enhanced planning approach would be complemented by the updated DMIS framework, and the increased certainty provided to generators as a result of this proposal.

6.4 Connecting Embedded Generators Rule Change (ERC0147)

The ERC0147 rule change process is not advanced enough to fully appreciate outcomes. Despite this the CEC expects that, if implemented, the introduction of an automatic access regime for EG would create opportunities for a few generators while leaving most others to follow the negotiated connection process through Chapter 5A. To a large degree this rule change proposal seeks to manage the same issues as ERC0147. However, this intent is also coupled with the need to align the Chapter 5A negotiated connection process to that which is expected by fundamental NEM design for generation connections.

More precisely, the CEC's proposal recognises the technical challenges faced by a connection and the relationship of this complexity with project designs and costs, while providing clear information to connection applicants to the extent that the NER "negotiate / arbitrate" framework should be effective and connection timelines can be met with certainty. In doing so it addresses significant deficiencies in Chapter 5A which need to be addressed irrespective of the intent of the ERC0147 proposal.

7 Contribution to the National Electricity Objective

The AEMC requires that a proposed rule change is benchmarked against the NEO as the rule making test⁶³. As defined by Section 7 of the NEL the NEO states that

“The objective of this Law is 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.”⁶⁴*

The CEC considers that the proposed changes would result in a significant reduction in barriers to entry and increased opportunities for EG projects to understand and address risk. The connection process is widely considered to present the greatest barrier to entry with connection related costs making up half of a total project cost on average⁶⁵. The rule change will make significant headway to increase certainty and reduce risk associated with the connection frameworks for both DNSPs and *connection applicants*.

The CEC considers that efficiency gains in the connection process will remove a significant barrier to increased expansion of EG, the long term benefits of which could include:

- Increased penetration of generation sources which inherently generate with a characteristic that closely matches demand. This characteristic implies that demand would be reduced during periods of high spot market prices. Thereby reducing the spot price at these times and promoting benefits to all consumers in the form of electricity being produced at lower cost.
- The potential for decreased investment in electricity infrastructure and peaking generation. As EG is usually installed close to load the overall reliance on the infrastructure will be reduced without trading supply quality, security, reliability and safety. This outcome would reduce the cost of supply for all consumers.
- Increased penetration of embedded generation will inherently become a demand-side participation measure which, because EG is co-located with load in most cases, will subsequently reduce overall system losses.

In consideration of efficient investment the rule change proposes to promote the NEO by:

- Ensuring that energy supplied by a *non-registered embedded generator* is installed at an efficient cost by:
 - Reducing information asymmetries and realising countervailing market power as intended by the NER’s current “negotiate / arbitrate” regime.

⁶³ AEMC 2012, *National Electricity Rules – Guidelines, Guidelines for Proponents: Preparing a Rule change proposal*, January 2012, Sydney, p. 4, available: www.aemc.gov.au.

⁶⁴ Government of South Australia, 2012, *National Electricity (South Australia) Act 1996*, p. 36, available: www.legislation.sa.gov.au

⁶⁵ Sustainability Victoria, 2010, *Sustainability Victoria – Distribution Generation Connection Experiences Analysis*, p. i, available: www.sustainability.vic.gov.au.

- Providing EG proponents with early vision of risks, rather than investing significant resources prior to being informed.
- Enhancing access to reliable information and a well-defined connection process which reduces risk and subsequently financing costs, and enhances support to any arbitration processes.
- Supporting the decision making process for EG projects by:
 - Enabling EG proponents to make well informed decisions at the appropriate project stages and milestones.
 - Enabling EG proponents more effective control over connection timelines and provide visibility of connection procedures.
 - Ensuring that both parties are aware of the connection requirements and technical standards from an early stage.
 - Enabling EG proponents to make efficient decisions about project designs, and market forces to contribute to the delivery of innovative solutions.
 - Providing increased certainty that the *connection applicant's* expectations will be considered during the assessment of a *negotiated connection application*, in particular that *power transfer capability* will be considered in a way which enables the *connection applicant* and other *Network Users* to understand and assess risks.
- Increasing the efficiency of the connection process by:
 - Allowing market forces to deliver on cost, timing and innovation wherever possible.
 - Streamlining the DNSP's *negotiated connection application* assessment processes.

In conjunction the rule changes would correct some components of the Chapter 5A process which are inconsistent with current NER. As these frameworks are already considered to promote the NEO, so too would these corrections.

Given the above the CEC considers that the rule change would promote the relevant aspects of the NEO including the promotion of efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to the price, quality, safety, reliability and security of supply of electricity. The CEC also considers that the increased utilisation of EG would, in the long term, contribute to more efficient levels of generation, distribution and transmission investment.

8 Expected Benefits and Costs of the Proposed Rule

8.1 Expected benefits

The CEC contends that the NEO is best met where the frameworks minimise total system costs. There are a number of ways in which the rule changes would benefit both EG proponents and DNSPs by creating efficient investment opportunities for generator proponents and efficient operation of distribution networks, including:

Efficient investment opportunities

The proposed rule incorporates some process cost enhancing mechanisms, including:

- Incorporating efficiencies into the development of *negotiated connection applications* by allowing market forces to deliver on cost, timing and innovation wherever possible.
- Reduced costs of uncertainty as the *negotiated connection application* would be lodged to the DNSP's specification. Although the DNSP would charge for the assessment of the application, its acceptance and processing would be more formalised and streamlined thus increasing certainty and reducing risk.

The proposed rule incorporates new mechanisms to reveal and understand other costs and risks, including:

- Enabling proponents to establish project viability and expected costs at an early stage with the opportunity to carry out sufficient preliminary feasibility studies prior to lodging a *negotiated connection application*.
- Significantly reduced risk for EG proponents by removing the ability of DNSPs to pass on the financial risk of their regulated investment obligations.
- Efficient costs of investment by allowing generators to properly account for *power transfer capability*, as already intended by the NER.
- Enhanced visibility of a DNSP's proposed connection costs and technical requirements for connection such that negotiations are properly supported to reveal efficient outcomes.

Improved efficiencies in connection processes

- Enhanced negotiating position of *connection applicants* such that countervailing market power is given the opportunity to maximise efficiencies, as intended by the NER.
- Enhanced management of risks and expectations by *connection applicants* through prescribing a defined process within the NER.

- Increased certainty in process timing as the applicant would be provided the opportunity to manage the timing of the development of the *negotiated connection application*.
- Significant reduction in DNSP efforts to process *negotiated connection applications*, and subsequently a reduction of the associated costs.
- Enhanced certainty by placing accountability on the accuracy of information provided by DNSP to support a *negotiated connection application*.
- Enhanced opportunities through the creation of defined technical standards for the connection of embedded generation, the development of which will be by those which are currently best placed to do so.

8.2 Expected costs

There are some costs implicit in the rule change. However, in most cases these are costs which are either already considered acceptable under the NER or can be easily recovered. These are expected to include:

- The costs for DNSPs to establish internal processes for the collation and delivery of information. However, these costs are already considered acceptable under the NER for connections processed under Chapter 5. In some cases DNSPs are already undertaking their own connection process in this way. The CEC emphasises that the requirement to provide information to the applicant only formalises the collation of information required under the current connection process.
- The costs for each DNSP to prepare a pro-forma *negotiated connection application*. While Chapter 5A already contemplates that this would be required the proposed rule change would expect more detail than currently envisaged. Therefore these costs are expected to be minimal.
- The costs for each DNSP to prepare a clear set of technical requirements for connection. There is widespread agreement amongst stakeholders that the current lack of readily available and coherent technical standards for the connection of EG is a significant barrier to new entry. Each DNSP has detailed prerequisite technical knowledge about their network. Therefore they are best placed to develop technical standards to suit their needs. The CEC contends that the lack of clearly defined standards is currently imposing uncertainty costs far in excess of the cost of developing these standards. The proposal also facilitates the direct application of national standards, should they be implemented at a later stage.
- Potential costs for increased AER involvement. The CEC accepts that there may be an increased demand for the arbitration process as it would be made more accessible. However, the framework under which a *negotiated connection application* is developed means that the AER's decisions would be better supported. Concurrently, and as acknowledged by the AEMC, the AER's dispute resolution arrangements will benefit from an enhanced negotiating framework⁶⁶.

⁶⁶ AEMC 2012, *Transmission Framework Review*, Second Interim Report, 15 August 2012, Sydney, p. 91, available: www.aemc.gov.au.

9 Appendix A: Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
CEC	Clean Energy Council
DMIS	Demand Management Incentive Scheme
DMEGCIS	Demand Management and Embedded Generation Connection Incentive Scheme
DNSP	Distribution Network Service Provider
EG	Embedded Generator
MCE	Ministerial Council on Energy
NECF	National Energy Customer Framework
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
NGMC	National Grid Management Council
VCEC	Victorian Competition and Efficiency Commission

10 Appendix B: Proposed Rule Description

The proposed rule would make the following changes in the order they appear in Chapter 5A:

- Insert two new Chapter 5A specific definitions for a *negotiated connection application* and a *negotiated connection offer* and ensure that a *connection applicant* includes any person who submits the former to a DNSP.
- Clarify the definition of *premises connection assets* to avoid confusion and ensure consistency with the NER definition and use of the defined term '*connection asset*'.
- **Clause 5A.C.1 Negotiation of connection**
 - For clarity, in clause (a) specify that a negotiated connection requires a *negotiated connection contract* and expand subparagraph (a)(1) to clarify that this includes where a *negotiated connection application* is submitted to the DNSP.
 - Insert new paragraph (f) which will, in subparagraph (1) require that *negotiated connection application* be submitted for a new connection which includes a *non-registered embedded generator*; and in subparagraph (2) require the DNSP to determine the form and content of the *negotiated connection application* to be submitted.
- **Clause 5A.C.3 Negotiating framework**
 - Expand subparagraph (a)(1) by specifying that any matter relevant to the connection can be negotiated in good faith (consistently with NER clause 5.3.6(f)).
 - Expand subparagraph (a)(3) in recognition of the commercial importance of the technical information to be provided by the DNSP to the *connection applicant* in the need to assess the commercial significance of the *distribution network user access* arrangements sought and develop the *negotiated connection application*.
 - Update paragraph (a)(3)(i) to ensure consistency with the newly defined *negotiated connection offer*.
 - Insert a new clause (a)(3)(v) to require that the DNSP discloses all information required by the *connection applicant* and as outlined in Schedule 5A.2.
 - Delete note within clause (a)(3) suggesting that information provision should be at the DNSP's discretion.
 - Expand subparagraph (a)(4) to require a DNSP to consult with *Network Users* or other *negotiated connection applicants* who may be adversely affected by a proposed *negotiated connection application*.
 - Minor changes to clause (a)(5) to accommodate other proposed changes.
 - Adjust clause (a)(5)(i) to require a DNSP to provide concise information on the technical requirements for connection, including the relevant technical standards, where a *negotiated connection offer* is sought.
 - Insert new clause (a)(5)(v) to require a DNSP to consider the technical merit of the connection arrangements proposed in a *negotiated connection application*, or determine the technical requirements as requested by the *connection applicant*.

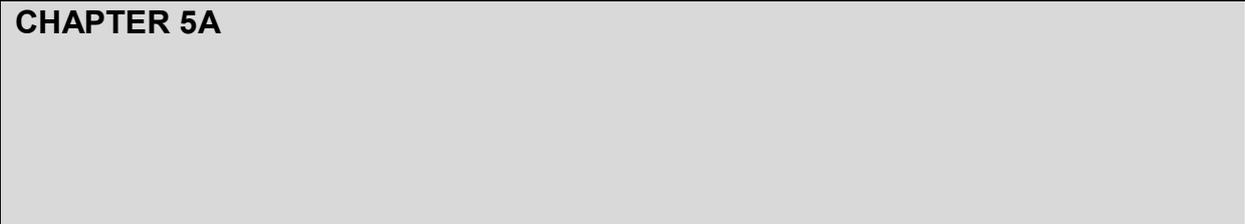
- Expand subparagraph (a)(6) to state that the DNSP must use reasonable endeavours to provide a *negotiated connection offer* which meets the *connection applicant's* reasonable requirements, including the *distribution network user access* arrangements sought.
 - Delete the 'example' associated with subparagraph (a)(6). The NER needs to be clear that these matters are not *optional*.
 - Insert a new subparagraph (a)(8) which requires the DNSP to accept or reject the *negotiated connection application* or parts of it. When any part of the proposal is rejected the DNSP must provide sufficient evidence to reason the decision and advise of the adjustments which will lead to the DNSP accepting the relevant parts of it.
 - Alter subparagraph (b)(1) to require (thus removing the term "*if practicable*") a DNSP to request additional information from a *connection applicant* within 20 business days after receiving any *connection application* or *negotiated connection application*, as the case may be.
 - Alter subparagraph (b)(2) to require that the DNSP provides all information relevant to negotiations within 20 business days acknowledges that a *negotiated connection contract* is required.
 - Delete those parts of subparagraph (b)(2) which relate the information relevant to negotiations to an additional information request from the DNSP. The DNSP has had two prior opportunities to request additional information and the DNSP should ensure that the *connection application* outlines sufficient detail of the information to be provided by the applicant in the first instance.
 - Expand paragraph (c) to recognise that all information exchanged is *confidential information* as per NER clause 5.1.3(f).
- **Clause 5A.C.4 Fee to cover the cost of negotiation**
 - Minor changes to clause 5A.C.4(a) and (b) to accommodate other proposed changes.
 - Insert new paragraph (c) which restricts charging for the provision of information to the connection applicant on the basis that the NER already expects the DNSP to have such information in a complete and accurate state.
 - Insert new paragraph (d) to disallow a fee to be charged to *connection applicants* who are required to submit a *negotiated connection application*, until after the DNSP has advised that the *negotiated connection application* as complete.
 - Insert new paragraph (e) which will require that the fee will be accompanied by a breakdown of the basis on which it was calculated including labour, time and other expenses along with an explanation of any divergence from the estimate provided initially under clause 5A.C.3.
 - **Clause 5A.D.3 Application process**
 - Place a 10 business day time limit on the DNSP's request for additional information, or notification of defective information in the initial application requirements of paragraphs (d) and (e).
 - Expand paragraph (f) to clarify that the DNSP must notify the *connection applicant* of the need to submit a *negotiated connection application* where applicable.
 - Expand paragraph (f) to obligate the DNSP to notify the connection applicant of the types of, and timing of the information they will receive at the time the DNSP acknowledges that the connection will be negotiated.

- Insert new paragraph (h) which, where a *negotiated connection application* is to be submitted, permits a *connection applicant* to seek *distribution network user access* arrangements including a level of *power transfer capability*.
- Insert new paragraph (i) which, where a *negotiated connection application* is to be submitted, requires a DNSP to either accept it as complete, or notify the *connection applicant* of any defects which must be rectified for the application to be re-submitted within 10 business days of its receipt.
- **Clause 5A.E.1 Connection charge principles**
 - Minor change to clause (c)(2) for clarification and consistency with the NER.
 - Alter subparagraph (c)(4) to remove the ability for a *non-registered embedded generator* to be charged for *augmentations* related to forecast load growth.
 - Insert a new subparagraph (c)(7) which firstly, limits costs for *connection assets*, *network extension* and *network augmentation* which a *negotiated connection application* can be made subject to those which can be identified by the information provided by the DNSP; secondly, describes the process for changes to the information provided to the connection applicant to support a negotiated connection application.
- **Clause 5A.E.2 Itemised statement of connection charges**
 - Expand rule to ensure that all costs are accompanied with an explanatory statement of their basis of calculation.
 - Insert new paragraph (a) which requires the DNSP to provide a scope of work to which *connection charges* shall apply.
 - Relocate paragraphs (a) and (b) (to (b) and (c) respectively) and expand to include a statement of connection charges, a scope of work, details of the basis on which charges were calculated and equipment cost breakdowns including *network extension*, *network augmentation* and *connection asset* costs, any other incidental costs.
 - Insert a new paragraph (d) to include a breakdown of any ongoing operation and maintenance costs, the basis on which they were calculated and an associated schedule of works.
 - Insert new paragraph (e) which requires that the DNSP explain any divergence from any cost estimate provided as part of the negotiation framework.
- **Clause 5A.E.3 Connection charge guidelines**
 - Minor change to paragraph (c)(6)(i) to avoid ambiguity as the NER does not contemplate an '*extension asset*'. This asset would simply form part of a *network extension* and would be a *network asset*.
- **Clause 5A.F.4 Negotiated connection offer**
 - Minor changes to clause 5A.F.4 to ensure consistency with the newly defined *negotiated connection offer*.
 - Expand paragraph (a) to include that the *negotiated connection offer* must be made within 65 days following the submission of a *negotiated connection application*. Any time taken for the *connection applicant* to provide additional information or amend any rejected components of the application can only extend this timeframe if the relevant response is demonstrated to materially delay the making of the offer.

- Insert new paragraph (b) which states that the DNSP shall be deemed to accept the *negotiated connection application* should the 65 day period lapse without appropriate response as required by the negotiating framework or application process.
- Expand paragraph (d) (redesignated (e)) to ensure that a *negotiated connection offer* must not include a charge which is inconsistent with Chapter 5A.
- Expand paragraph (e) to require that, upon request, the DNSP must make reasonable endeavours to facilitate negotiations of the terms and conditions of a *negotiated connection offer* by providing access to the relevant legal personnel and that the *negotiated connection offer* will remain open for a further 20 days after the DNSP has provided access to the relevant legal personnel.
- **Clause 5A.G.1 Relevant disputes**
 - Expand relevant disputes to include disputes arising from the obligations of Chapter 5A.
- **Schedule 5A.1 Minimum content requirements for connection contract**
 - Expand Part B, subparagraph (a)(2) to state that a connection offer must include details of the level and standard of *power transfer capability* that the *network* will provide, including a description of the conditions under which the *network* will provide the stated *power transfer capability*. Delete the reference to the ‘*connection point capacity*’ as this is inconsistent with fundamental NER principles.
 - Insert new subparagraph (a)(14) which requires the *connection offer* to include the limitations of the *embedded generator’s* liability.
- **Schedule 5A.2 Information to be provided to support a *negotiated connection application***
 - Insert a new Schedule 5A.2, “Information to be provided to support a *negotiated connection application*”, which prescribes the information to be provided by the DNSP for the development of a *negotiated connection application*, along with a statement that the DNSP can elect to publish such information and direct the applicant to it. This information would be the as outlined in Section 3.3.
- **Chapter 10 Glossary**
 - Update definition of *distribution network user access* to relate to Chapter 5A along with Chapter 5.

11 Attachment 1: Draft Amendments to Chapter 5A

CHAPTER 5A



Chapter 5A Electricity connection for retail customers

Part A Preliminary

5A.A.1 Definitions

In this Chapter:

basic connection service

means a *connection service* related to a *connection* (or a proposed *connection*) between a *distribution system* and a *retail customer's* premises (excluding a non-registered *embedded generator's* premises) in the following circumstances:

- (a) either:
 - (1) the *retail customer* is typical of a significant class of *retail customers* who have sought, or are likely to seek, the service; or
 - (2) the *retail customer* is, or proposes to become, a *micro-embedded generator*; and
- (b) the provision of the service involves minimal or no *augmentation* of the *distribution network*; and
- (c) a *model standing offer* has been approved by the *AER* for providing that service as a *basic connection service*.

basic micro EG connection service

means a *basic connection service* for a *retail customer* who is a *micro embedded generator*.

connection

means a physical link between a *distribution system* and a *retail customer's* premises to allow the flow of electricity.

connection alteration

means an alteration to an existing *connection* including an addition, upgrade, *extension*, expansion, *augmentation* or any other kind of alteration.

connection applicant

means an applicant for a *connection service* of 1 of the following categories:

- (a) *retail customer* (which includes, for the avoidance of doubt, any person who has submitted a negotiated connection application to a Distribution Network Service Provider);
- (b) *retailer* or other person acting on behalf of a *retail customer*; or
- (c) *real estate developer*.

connection application

means an application under clause 5A.D.3.

connection charge

means a charge imposed by a *Distribution Network Service Provider* for a *connection service*.

connection charge guidelines

– see clause 5A.E.3.

connection charge principles

– see clause 5A.E.1.

connection contract

means a contract formed by the making and acceptance of a *connection offer*.

connection offer

means an offer by a *Distribution Network Service Provider* to enter into a *connection contract* with:

- (a) a *retail customer*; or
- (b) a *real estate developer*.

connection policy

means a document, approved as a *connection policy* by the *AER* under Chapter 6, Part E, setting out the circumstances in which *connection charges* are payable and the basis for determining the amount of such charges.

connection service

means either or both of the following:

- (a) a service relating to a *new connection* for premises;
- (b) a service relating to a *connection alteration* for premises.

contestable

– a service is *contestable* if the laws of the *participating jurisdiction* in which the service is to be provided permit the service to be provided by more than one supplier as a *contestable* service or on a competitive basis.

customer connection contract

– see section 67 of the *NERL*.

embedded generator

means a person that owns, controls or operates an *embedded generating unit*.

enquiry

means a preliminary *enquiry* under clause 5A.D.2.

micro EG connection

means a *connection* between an *embedded generating unit* and a *distribution network* of the kind contemplated by Australian Standard AS 4777 (Grid connection of energy systems via inverters).

micro embedded generator

means a *retail customer* who operates, or proposes to operate, an *embedded generating unit* for which a *micro EG connection* is appropriate.

model standing offer

means a document approved by the *AER* as a *model standing offer* to provide *basic connection services* (see clause 5A.B.3) or as a *model standing offer* to provide *standard connection services* (see clause 5A.B.5).

negotiated connection application

means a *connection application* in a form determined by the relevant *Distribution Network Service Provider* in accordance with clause 5A.C.1(f) and provided by a *connection applicant* for the purposes of negotiating a *negotiated connection contract* which relates to a *non-registered embedded generator*.

negotiated connection contract

– see clause 5A.C.1.

negotiated connection offer

means a *connection offer* which has been subject to the negotiating framework in this chapter and which, upon acceptance will form a *negotiated connection contract*.

new connection

means a *connection* established or to be established, in accordance with this Chapter and applicable *energy laws*, where there is no existing *connection*.

non-registered embedded generator

means an *embedded generator* that is neither a *micro embedded generator* nor a *Registered Participant*.

premises connection assets

means the components of a *distribution system* used to provide *connection services*, and which includes the physical assets which connect a *retail customer* to a *distribution network connection point*.

real estate developer

means a person who carries out a *real estate development*.

real estate development

means the commercial development of land including its development in 1 or more of the following ways:

- (a) subdivision;
- (b) the construction of commercial or industrial premises (or both);
- (c) the construction of multiple new residential premises.

retail customer

includes a non-registered *embedded generator* and a *micro embedded generator*.

standard

connection service means a *connection service* (other than a *basic connection service*) for a particular class (or sub-class) of *connection applicant* and for which a *model standing offer* has been approved by the AER.

supply service

means a service (other than a *connection service*) relating to the *supply* of electricity.

5A.A.2 Application of this Chapter

This Chapter does not apply to, or in relation to, a *connection applicant* that is a *Registered Participant* or an *Intending Participant* unless the *Registered Participant* or *Intending Participant* is acting as the agent of a *retail customer*.

Part B Standardised offers to provide basic and standard connection services

Division 1 Basic connection services

5A.B.1 Obligation to have model standing offer to provide basic connection services

- (a) Subject to paragraph (b), a *Distribution Network Service Provider* must have a *model standing offer* to provide *basic connection services* to *retail customers*.
- (b) *Basic connection services* are of 2 classes:
 - (1) *basic connection services* for *retail customers* who are not *embedded generators*; and
 - (2) *basic connection services* for *retail customers* who are *micro-embedded generators*.

Note

Basic connection services are not available to non-registered *embedded generators*.

- (c) A *model standing offer* may relate to each class of *basic connection services* (or a subclass for which there is significant demand) within the area served by the relevant *distribution network*.

5A.B.2 Proposed model standing offer for basic connection services

- (a) A *Distribution Network Service Provider* must submit for the *AER's* approval a proposed *model standing offer* to provide *basic connection services* for each class (or subclass) of *basic connection services* on specified terms and conditions.
- (b) The terms and conditions of the proposed *model standing offer* must cover:
 - (1) a description of the *connection* (and the *premises connection assets* of which it is to be comprised) including a statement of its maximum capacity; and
 - (2) timeframes for commencing and completing the work; and
 - (3) the qualifications required for carrying out the work involved in providing a *contestable* service (including reference to the jurisdictional or other legislation and statutory instruments under which the qualifications are required); and
 - (4) the safety and technical requirements (including reference to the jurisdictional or other legislation and statutory instruments under which the requirements are imposed) to be complied with by the provider of a *contestable* service or the *retail customer* (or both); and
 - (5) details of the *connection charges* (or the basis on which they will be calculated) including details of the following (so far as applicable):
 - (i) the cost of any necessary *extension* to the *distribution system* for which provision has not already been made through existing *distribution use of system* charges or a tariff applicable to the *connection*;
 - (ii) *meter* type and cost;
 - (iii) the cost of any other relevant *premises connection assets*;
 - (iv) the costs of common components of minor variations from the standard specifications;
 - (v) any other incidental costs; and
 - (6) the manner in which *connection charges* are to be paid by the *retail customer*; and

- (7) if the service is a *basic micro EG connection service*, the particular requirements with regard to the export of electricity into the *distribution system* including:
 - (i) the special requirements for *metering* and other equipment for the export of electricity; and
 - (ii) the required qualification for installers of relevant equipment (including reference to the jurisdictional or other legislation and statutory instruments under which the qualifications are required); and
 - (iii) the special safety and technical requirements (including reference to the jurisdictional or other legislation and statutory instruments under which they are imposed) to be complied with by the provider of a *contestable service* or the *retail customer* (or both).

5A.B.3 Approval of terms and conditions of model standing offer to provide basic connection services

- (a) The *AER* may approve a proposed *model standing offer* to provide *basic connection services* of a particular class (or subclass) on specified terms and conditions if satisfied that:
 - (1) the services are likely to be sought by:
 - (i) a significant number of *retail customers* in the area served by the *distribution network* (excluding *embedded generators*); or
 - (ii) micro-embedded *generators*; and
 - (2) the *connection charges* are consistent with the *Distribution Network Service Provider's distribution determination* including the *connection policy*; and
 - (3) the terms and conditions are fair and reasonable; and
 - (4) the terms and conditions comply with applicable requirements of the *energy laws*.
- (b) In deciding whether to approve a proposed *model standing offer* to provide *basic connection services* on specified terms and conditions, the *AER* must have regard to:
 - (1) the *national electricity objective*; and
 - (2) the basis on which the *Distribution Network Service Provider* has provided the relevant services in the past; and
 - (3) the geographical characteristics of the area served by the relevant *distribution network*.

- (c) If the *AER* does not approve a proposed *model standing offer* to provide *basic connection services* of a particular class on specified terms and conditions:
 - (1) the *AER* must give the *Distribution Network Service Provider* written reasons for its decision; and
 - (2) the *Distribution Network Service Provider* must re-submit the proposed *model standing offer* with appropriate amendments as soon as reasonably practicable.
- (d) The *AER* must deal expeditiously with a proposed *model standing offer* to provide *basic connection services*.

Division 2 **Standard connection services**

5A.B.4 **Standard connection services**

- (a) A *Distribution Network Service Provider* may submit for the *AER's* approval a proposed *model standing offer* to provide *standard connection services* on specified terms and conditions.
- (b) Different sets of terms and conditions may be submitted under this *rule* for different classes of *connection services* or different classes of *retail customer*.
- (c) The terms and conditions must cover:
 - (1) a description of the *connection* (and the *premises connection assets* of which it is to be comprised) including a statement of its maximum capacity; and
 - (2) timeframes for commencing and completing the work; and
 - (3) the qualifications required for carrying out the work involved in providing a *contestable* service (including reference to the jurisdictional or other legislation and statutory instruments under which the qualifications are required); and
 - (4) the safety and technical requirements (including reference to the jurisdictional or other legislation and statutory instruments under which the requirements are imposed) to be complied with by the provider of a *contestable* service or the *retail customer* (or both); and
 - (5) details of the *connection charges* (or the basis on which they will be calculated) including details of the following (so far as applicable):
 - (i) the cost of *premises connection assets* to which the *connection charges* relate;

- (ii) the cost of any necessary *augmentation* of the *distribution system* for which provision has not already been made through existing *distribution use of system* charges or a tariff applicable to the *connection*;
 - (iii) the costs of common components of minor variations from the standard specifications;
 - (iv) any other incidental costs; and
- (6) the manner in which *connection charges* are to be paid by the *retail customer*.

5A.B.5 Approval of model standing offer to provide standard connection services

- (a) The *AER* may approve a proposed *model standing offer* to provide a particular class of *standard connection services* on specified terms and conditions if satisfied that:
 - (1) the terms and conditions are fair and reasonable; and
 - (2) the *connection charges* are consistent with the *Distribution Network Service Provider's distribution determination* including the *connection policy*; and
 - (3) the terms and conditions comply with applicable requirements of the *energy laws*.
- (b) In deciding whether to approve the proposed *model standing offer*, the *AER* must have regard to the *national electricity objective*.
- (c) If the *AER* does not approve a proposed *model standing offer* to provide *standard connection services*:
 - (1) the *AER* must give the *Distribution Network Service Provider* written reasons for its decision; and
 - (2) the *Distribution Network Service Provider* may re-submit the proposed *model standing offer* with appropriate amendments.
- (d) The *AER* must deal expeditiously with a proposed *model standing offer* to provide *standard connection services*.

Division 3 Miscellaneous

5A.B.6 Amendment etc of model standing offer

- (a) A *Distribution Network Service Provider* may submit, for the *AER's* approval, a proposal:

- (1) for the amendment or substitution of a *model standing offer* to provide *basic connection services*; or
 - (2) for the amendment, substitution or revocation of a *model standing offer* to provide *standard connection services*.
- (b) In deciding whether to approve a proposal submitted for its approval under this clause, the *AER* must, so far as relevant, apply the same principles and have regard to the same matters as are relevant to the approval of a proposed *model standing offer* to provide *basic connection services* or *standard connection services*.
- (c) The amendment, substitution or revocation of a *model standing offer* takes effect on the date of the *AER*'s approval or a later date fixed by the *AER* in its approval.
- (d) If the *AER* does not approve a proposal submitted under paragraph (a):
- (1) the *AER* must give the *Distribution Network Service Provider* written reasons for its decision; and
 - (2) the *Distribution Network Service Provider* may re-submit the proposal with appropriate amendments.
- (e) The amendment, substitution or revocation of a *model standing offer* does not affect the validity or effect of:
- (1) a *connection offer* made before the amendment, substitution or revocation takes effect; or
 - (2) a *connection contract* formed on the basis of such an offer.
- (f) The *AER* must deal expeditiously with a proposal for the amendment, substitution or revocation of a *model standing offer*.
- (g) If the *AER*, after making a *distribution* determination, considers that an existing *model standing offer* to provide *basic connection services* or *standard connection services* may be inconsistent with the *Distribution Network Service Provider's distribution determination* (including the *connection policy*), the *AER* may require the *Distribution Network Service Provider* to submit a proposal under paragraph (a) to bring the *model standing offer* into consistency with the *distribution determination*.

5A.B.7 Publication of model standing offers

A *Distribution Network Service Provider* must publish, on its website, each of its *model standing offers* to provide *basic connection services* or *standard connection services*.

Part C Negotiated connection

5A.C.1 Negotiation of connection

- (a) A *connection applicant* and a *Distribution Network Service Provider* ~~may~~must negotiate a *connection contract* (a **negotiated connection contract**):
- (1) where the *connection service* sought by the *connection applicant* is neither a *basic connection service* nor a *standard connection service*, including where the *connection applicant* has lodged a *negotiated connection application with the Distribution Network Service Provider in accordance with clause 5A.C.1(f)*; or
 - (2) where the *connection service* sought by the *connection applicant* is a *basic connection service* or a *standard connection service* but the *connection applicant* elects to negotiate the terms and conditions on which the *connection service* is to be provided.
- (b) The negotiations may, if the *connection applicant* elects, extend to *supply services* available from the *Distribution Network Service Provider*.
- (c) This Part sets out the requirements for negotiation referred to in the *NERL*.
- (d) When reading this Part in the context of the *NERL*:
- (1) a reference to a *connection applicant* in this Part corresponds to a reference to a *customer* in the *NERL*; and
 - (2) a reference to a *Distribution Network Service Provider* in this Part corresponds to a reference to a distributor in the *NERL*; and
 - (3) this Part will be read subject to any further adaptations and modifications necessary to give effect to the intendment of the *NERL*.
- (e) If, but for this paragraph, a contract negotiable under this Part, or parts or aspects of such a contract, would also be negotiable under Chapter 6, this Part applies to the exclusion of the relevant provisions of Chapter 6.
- (f) If a *negotiated connection contract* is a contract for a *non-registered embedded generator*, and the *AER* has not approved a relevant *model standing offer to provide standard connection services* for such:
- (1) the *connection applicant* must lodge a *negotiated connection application with the relevant Distribution Network Service Provider in order to negotiate a negotiated connection contract*; and
 - (2) the *Distribution Network Service Provider* must determine the form and content of the *negotiated connection application* in accordance with paragraph (a) of Schedule 5A.2.

5A.C.2 Process of negotiation

A *Distribution Network Service Provider* and a *connection applicant* for a negotiated *connection contract* must negotiate in accordance with the negotiation framework set out in clause 5A.C.3.

5A.C.3 Negotiation framework

(a) The following rules (collectively described as the **negotiation framework**) govern negotiations between a *Distribution Network Service Provider* and a *connection applicant*:

- (1) both the *connection applicant* and the *Distribution Network Service Provider* are entitled to negotiate any matter relevant to the provision of *connection* and each party must conduct such negotiation in good faith.
- (2) the *connection applicant* must, at the request of the *Distribution Network Service Provider*, provide the *Distribution Network Service Provider* with information it reasonably requires in order to negotiate on an informed basis.

Note

The information might (for example) include estimates of average and *maximum demand* for electricity to be *supplied* through the *connection*.

- (3) the *Distribution Network Service Provider* must provide the *connection applicant* with information the *connection applicant* reasonably requires in order to fully assess the commercial significance of the *distribution network user access arrangements* sought by the *connection applicant*, and in order that the *connection applicant* is able to negotiate on an informed basis including;
 - (i) an estimate of the amount to be charged by the *Distribution Network Service Provider* for assessment of the application and the making of a *negotiated connection offer* for a negotiated *connection contract*; and
 - (ii) an estimate of *connection charges*; and
 - (iii) a statement of the basis on which *connection charges* are calculated; and
 - (iv) if the *connection applicant* has elected to extend the negotiations to *supply services*— an estimate of any applicable charges for *supply services* and a statement of the basis of their calculation; and;
 - (v) to the extent that it holds technical and other information necessary to facilitate the development and processing a *negotiated connection application* as described in Schedule

5A.2, a Distribution Network Service Provider must provide such information to the connection applicant.

Note

~~The Distribution Network Service Provider might, according to the circumstances of a particular case, need to provide further information to ensure the connection applicant is properly informed—for example, information about:~~

- ~~• technical and safety requirements;~~
- ~~• the types of connection that are technically feasible;~~
- ~~• network capacity at the proposed connection point;~~
- ~~• possible strategies to reduce the cost of the connection.~~

- (4) the Distribution Network Service Provider ~~may~~must consult with other Network Users or prospective Network Users users of the distribution network who may be adversely affected by the proposed new connection, ~~or connection alteration~~ or the distribution network user access arrangements sought by a negotiated connection application.
- (5) in assessing ~~the~~an application seeking a negotiated connection offer, the Distribution Network Service Provider must ~~determine~~:
 - (i) describe concisely the technical requirements for the proposed new connection or connection alteration, including the relevant technical standards for connection; and
 - (ii) determine the extent and costs of any necessary augmentation of the distribution system; and
 - (iii) determine any consequent change in charges for distribution use of system services; and
 - (iv) determine any possible material effect of the proposed new connection or connection alteration on the network power transfer capability of the distribution network to which the new connection or connection alteration is proposed to be made and any other distribution network that might be affected by the proposed new connection or connection alteration and:-
 - (v) consider the technical merit of the new connection or connection alteration proposed by any negotiated connection application or determine the technical requirements (as requested by the connection applicant), for the proposed new connection or connection alteration.
- (6) the Distribution Network Service Provider must make reasonable endeavours to make a negotiated connection offer that complies with the distribution network user access arrangements reasonably sought

~~by the *connection applicant*, including without limitation, the location of the proposed *connection point* and the level and standard of *power transfer capability* that the *network* will provide. *connection applicant's reasonable requirements*.~~

Example

~~Reasonable requirements as to the location of the proposed *connection point* or the level and standard of the *distribution network's power transfer capability*.~~

(7) the *Distribution Network Service Provider* must comply with its *connection policy*.

~~(8) Subject to paragraph (5)(v), the *Distribution Network Service Provider* must either accept or reject the *negotiated connection application* or any part of it, provided that notification of rejection of any part is accompanied with:~~

~~(i) sufficient evidence to enable the *connection applicant* to fully understand the reason(s) for the rejection; and~~

~~(ii) advise of the relevant adjustment(s) which would allow it to be accepted, including, without limitation, technical standards which the DNSP would accept.~~

(b) The following supplementary rules apply:

(1) if a *Distribution Network Service Provider* requires information from a *connection applicant* in addition to the information provided in ~~an~~ the application seeking a *negotiated connection offer*, a request for the additional information under paragraph (a)(2) must ~~(if practicable)~~ be made within 20 *business days* after the *Distribution Network Service Provider* receives the relevant application;

(2) the *Distribution Network Service Provider* must provide the information required under paragraph (a)(3) within 20 *business days* as soon as practicable after the *Distribution Network Service Provider* ~~acknowledges that a *negotiated connection contract* is required receives the *connection applicant's* application or, if the *Distribution Network Service Provider* requests additional information under paragraph (a)(2), as soon as practicable after the *Distribution Network Service Provider* receives the relevant information.~~

(c) All information exchanged under this clause 5A.C.3 must be treated as *confidential information* for the purposes of these *Rules*. Each party to the negotiations must maintain the confidentiality of *confidential information* disclosed by the other party in the course of the negotiations unless disclosure of the information is authorised:

(1) by the party to whom the duty of confidentiality is owed; or

(2) under:

- (i) the Law or the Rules; or
- (ii) any other law.

5A.C.4 Fee to cover cost of negotiation

- (a) A *Distribution Network Service Provider* may charge a *connection applicant* ~~seeking for~~ a ~~negotiated negotiated~~ *connection contract* a reasonable fee to cover expenses directly and reasonably incurred by the *Distribution Network Service Provider* in assessing the applicant's application and making a *negotiated connection offer*.
- (b) A fee charged under paragraph (a) is recoverable as a debt (whether or not the *connection applicant* accepts the *negotiated connection offer*).
- (c) For the avoidance of doubt, a *Distribution Network Service Provider* may not charge a *connection applicant* seeking a *negotiated connection contract* a fee in respect of the provision of any technical information which the *Distribution Network Service Provider* is required to maintain under clause 5.2.3(d)(8).
- (d) Where the *connection applicant* is required to submit a *negotiated connection application* to the relevant *Distribution Network Service Provider* that provider must not charge a fee to the *connection applicant* prior to the *Distribution Network Service Provider's* acknowledgement of receipt of a complete *negotiated connection application* as required by clause 5A.D.3(i).
- (e) Any fees charged in conjunction with this clause shall be accompanied with a breakdown of the basis of their calculation including an itemised listing of the associated labour costs, time and expenses, together with an explanation for any departure from any estimate of charges given by the *Distribution Network Service Provider* in accordance with clause 5A.C.3.

Part D Application for connection service

Division 1 Information

5A.D.1 Publication of information

A *Distribution Network Service Provider* must publish on its website the following:

- (a) an application form for a *new connection* or a *connection alteration*; and
- (b) a description of how an application for a *new connection* or a *connection alteration* is to be made (including a statement of the information required for the application); and

- (c) a description of the *Distribution Network Service Provider's basic connection services* and *standard connection services* and the classes (or subclasses) of *retail customer* to which they apply; and
- (d) an explanation of the *connection applicant's* right to negotiate with the *Distribution Network Service Provider* for a negotiated *connection contract* and a description of the negotiation process; and
- (e) the requirements for an expedited *connection*; and
- (f) the basis for calculation of *connection charges*.

Division 2 Preliminary enquiry

5A.D.2 Preliminary enquiry

- (a) A *Distribution Network Service Provider* must, within 5 *business days* after receiving an *enquiry* about a *connection service* (or some other period agreed between the *Distribution Network Service Provider* and the enquirer), provide the enquirer with the information required to make an informed application.
- (b) The information must include:
 - (1) a description of the *Distribution Network Service Provider's* basic and *standard connection services* and the terms and conditions of the *model standing offers* to provide such services (including possible costs); and
 - (2) a description of the process, including a statement of the information required, for submission of a *connection application* including an application for an expedited *connection*; and
 - (3) a statement of possible site inspection charges; and
 - (4) a statement of a *connection applicant's* right to negotiate the terms of a *connection contract* and a description of the relevant process (including the types of possible costs and expenses); and
 - (5) an indication of whether any aspects of the proposed *connection* are likely to be *contestable*; and
 - (6) any additional information reasonably required by the enquirer.
- (c) A *Distribution Network Service Provider* that publishes any of the above information on its website complies with its obligation to disclose information under this clause if it refers the enquirer to the relevant part of the website.

Exception:

If the enquirer asks for a written reply to the *enquiry* or asks for specific advice about the enquirer's particular situation, the *Distribution Network Service Provider* must reply to the *enquiry* as soon as reasonably practicable and in writing if requested.

- (d) If an *enquiry* is made to a *Distribution Network Service Provider* about a *connection* within the area of another *Distribution Network Service Provider*, the *Distribution Network Service Provider*:
 - (1) must inform the enquirer of the identity, and contact details, of the responsible *Distribution Network Service Provider*; and
 - (2) on doing so, is released from further obligations in relation to the *enquiry*.

Division 3 Applications

5A.D.3 Application process

- (a) An application for a *connection service* must be in the appropriate form determined by the *Distribution Network Service Provider*.
- (b) An application for a *connection service* may be made by:
 - (1) a *retail customer* for whom the *connection service* is sought; or
 - (2) a *retailer* or other person acting on behalf of a *retail customer*; or
 - (3) a *real estate developer* who seeks *connection services* for premises comprised in a *real estate development*.
- (c) If an application for a *connection service* has been made in error to the wrong *Distribution Network Service Provider*, that *Distribution Network Service Provider*:
 - (1) must inform the *connection applicant* of the identity, and contact details, of the responsible *Distribution Network Service Provider*; and
 - (2) on doing so, is released from further obligations in relation to the application.
- (d) If an application is incomplete in a *material* respect, the *Distribution Network Service Provider* must *advise* the applicant of the deficiency within 10 business days of its receipt, and may require the *connection applicant* to complete the application and re-submit it.
- (e) If the *Distribution Network Service Provider* reasonably requires additional information to assess the application, it may require the *connection applicant* to provide the necessary information and make such a request within 10 business days of receipt of the connection application.

- (f) The *Distribution Network Service Provider* must, within 10 *business days* after receipt of a complete application for a *connection service* or if the *connection applicant* is required to provide additional information under paragraph (e), within 10 *business days* after receipt of the information, (or some other period agreed between the *Distribution Network Service Provider* and the *connection applicant*):
- (1) *advise* the *connection applicant* whether the proposed *connection service* is a *basic connection service*, a *standard connection service* or neither; and
 - (2) if;
 - (i) the *connection service* is neither a *basic connection service* nor a *standard connection service* (including if a *negotiated connection application* for the *connection service* is required to be developed and lodged under clause 5A.C.1(f)); or
 - (ii) the *connection applicant* elects to have a *negotiated connection contract* even though the proposed *connection service* is a *basic* or *standard connection service*;

advise the *connection applicant* of the *negotiated connection process*, ~~and~~ of possible costs and expenses related to the negotiations and of the types of information which the *connection applicant* can expect to receive along with the timing of its receipt.

- (g) A single application may relate to multiple *connection services* of the same or different kinds.
- (h) A *negotiated connection application* may seek *distribution network user access* arrangements at any level of *power transfer capability* between zero and the higher of the expected maximum demand or the maximum power input of the relevant *embedded generator*.
- (i) Following the receipt of a *negotiated connection application* (including receipt of a *negotiated connection application* that has been resubmitted in response to notification of any missing or defective information under this clause) a *Distribution Network Service Provider* must, within 10 *business days* notify:
- (1) the *connection applicant* of any missing or defective information, of the type specified by the *Distribution Network Service Provider* as part of the *negotiated connection application*; or
 - (2) the *connection applicant* in writing that the *negotiated connection application* has been accepted to be complete.

5A.D.4 Site inspection

If a *Distribution Network Service Provider* reasonably needs to make a site inspection in order to determine the nature of a *connection service* sought by a *connection applicant*, the *Distribution Network Service Provider* may charge its reasonable expenses to the *connection applicant* and recover those expenses as a debt.

Part E Connection charges

5A.E.1 Connection charge principles

- (a) This clause states the *connection charge principles*.
- (b) A *retail customer* (other than a non-registered *embedded generator* or a *real estate developer*) who applies for a *connection service* for which an *augmentation* is required cannot be required to make a capital contribution towards the cost of the *augmentation* (insofar as it involves more than an *extension*) if:
 - (1) the application is for a *basic connection service*; or
 - (2) a relevant threshold set in the *Distribution Network Service Provider's connection policy* is not exceeded.

Note

In general, the intention is to exclude deep system *augmentation* charges for *retail customers*.

- (c) Subject to paragraph (b), in determining *connection charges* in accordance with its *connection policy*, a *Distribution Network Service Provider* must apply the following principles:
 - (1) if an *extension* to the *distribution network* is necessary in order to provide a *connection service*, *connection charges* for the service may include a reasonable capital contribution towards the cost of the *extension* necessary to provide the service;
 - (2) if *augmentation* of the retail customer's premises connection assets ~~at the retail customer's connection point~~ is necessary in order to provide a *connection service*, *connection charges* for the service may include a reasonable capital contribution towards the cost of the *augmentation* of the premises connection assets ~~at the connection point~~ necessary to provide the service;
 - (3) if *augmentation* of the *distribution system* is necessary in order to provide a *standard connection service*, *connection charges* for the service may include a reasonable capital contribution towards the cost of the *augmentation* necessary to provide the service;

- (4) if *augmentation* of the *distribution system* is necessary in order to provide a *connection service* under a ~~negotiated~~ *negotiated connection contract*, *connection charges* for the service may, subject to any agreement to the contrary, include a reasonable capital contribution towards the cost of *augmentation* of the *distribution system* to the extent necessary to provide the service and, where the service is not a service to connect a non-registered embedded generator, to any further extent that a prudent service provider would consider necessary to provide efficiently for forecast *load* growth;
- (5) despite subparagraphs (1) to (4) if *augmentation* of the *distribution system* is necessary in order to provide, on the application of a *real estate developer*, *connection services* for premises comprised in a *real estate development*, *connection charges* for the services may, subject to any agreement to the contrary, include a reasonable capital contribution towards the cost of *augmentation* of the *distribution system* to the extent necessary to provide the services and to any further extent that a prudent service provider would consider necessary to provide efficiently for forecast *load* growth;
- (6) however, a capital contribution may only be required in the circumstances described in subparagraphs (1) to (5) if provision for the costs has not already been made through existing *distribution use of system* charges or a tariff applicable to the *connection*;
- (7) Where applicable to a negotiated connection application a negotiated connection offer must not include connection charges which relate to premises connection assets, network extension or augmentation works which the connection applicant could not determine as being necessary through investigation of the information provided to it under clause 5A.C.3(a)(3)(v), unless
 - (i) the Distribution Network Service Provider can provide reasonable evidence that a change to the information occurred after the original information was provided, and that the new information will have a material impact on the distribution network user access arrangements reasonably sought by the connection applicant; and
 - (ii) the Distribution Network Service Provider notifies the connection applicant in writing of the details of the change and its requirement(s); and
 - (iii) the connection applicant agrees to accept the change.
- (d) If:
 - (1) a *connection asset* ceases, within 7 years after its construction or installation, to be dedicated to the exclusive use of the *retail customer* occupying particular premises; and

- (2) the *retail customer* is entitled, in accordance with the *connection charge guidelines*, to a refund of *connection charges*;

the *Distribution Network Service Provider* must make the refund, and may recover the amount of the refund, by way of a *connection charge*, from the new users of the asset.

- (e) For the purposes of paragraph (d), a person is taken to be a new user of a *connection asset* if the asset comes to be used to provide a *connection* to that person's premises
- (f) For the purposes of this clause capital contribution includes a prepayment or financial guarantee.

5A.E.2 Itemised statement of connection charges

A *connection offer* (including, for the avoidance of doubt, a *negotiated connection offer*) must be accompanied by a schedule containing an itemised statement of ~~*connection*~~-costs and an explanatory statement of the basis on which they are calculated including (so far as relevant) the following:

- (a) a scope of work to be executed on acceptance of the offer as required to provide the *connection service* to which all charges can be attributed; and
- (~~ba~~) applicable *connection charges* and a statement of the basis on which they are calculated; and
- (~~cb~~) a detailed cost breakdown showing equipment, labour and expenses for works including
- (1) details of any *network extension* required to provide the *connection service* and the associated cost; and ~~cost of *network extension*~~;
- (2) details of any *premises connection assets* required to provide the *connection service* and the associated cost; and
- (3) details of ~~*upstream-network*~~ *augmentation* required to provide the *connection service* and associated cost; and
- (4) any other incidental costs and the basis of their calculation.
- (d) where applicable, any ongoing operation and maintenance works proposed shall accompanied with a detailed cost breakdown showing projected equipment and labour costs and expenses along with man hours, fees, and works schedule(s); and
- (e) an explanation of any divergence from any estimate provided under clause 5A.C.3.

5A.E.3 Connection charge guidelines

- (a) The *AER* must develop and *publish* guidelines (***connection charge guidelines***) for the development of *connection policies* by *Distribution Network Service Providers*.
- (b) The purpose of the guidelines is to ensure that *connection charges*:
 - (1) are reasonable, taking into account the efficient costs of providing the *connection services* arising from the *new connection* or *connection alteration* and the revenue a prudent operator in the circumstances of the relevant *Distribution Network Service Provider* would require to provide those *connection services*; and
 - (2) provide, without undue administrative cost, a user-pays signal to reflect the efficient cost of providing the *connection services*; and
 - (3) limit cross-subsidisation of *connection* costs between different classes (or subclasses) of *retail customer*; and
 - (4) if the *connection services* are *contestable* – are competitively neutral.
- (c) The guidelines must:
 - (1) describe the method for determining charges for *premises connection assets*; and
 - (2) describe the circumstances (or how to determine the circumstances) under which a *Distribution Network Service Provider* may receive a capital contribution, prepayment or financial guarantee from a *retail customer* or *real estate developer* for the provision of a *connection service*; and
 - (3) describe how the amount of any such capital contribution, prepayment or financial guarantee is to be determined; and
 - (4) establish principles for fixing a threshold (based on capacity or any other measure the *AER* thinks fit) below which *retail customers* (not being a non-registered *embedded generator* or a *real estate developer*) are exempt from any requirement to pay *connection charges* (or to give consideration in the form of a capital contribution, prepayment or financial guarantee) for an *augmentation* (other than an *extension*) to the *distribution network* necessary to make the *connection*; and
 - (5) describe the methods for calculating the *augmentation* component for the *connection assets* and, if the *augmentation* consists of or includes an *extension*, the *extension* component of a *connection charge*; and
 - (6) describe the method for calculating:

- (i) the amount of a refund of *connection charges* for a *connection asset* ~~or network when an extension asset~~ originally installed to *connect* the premises of a single *retail customer* is used, within 7 years of its installation, to *connect* other premises and thus comes to be used for the benefit of 2 or more *retail customers*; and
 - (ii) the threshold below which the refund is not payable; and
- (7) describe the treatment of *augmentation* assets.
- (d) The principles for establishing an exemption under paragraph (c)(4) must ensure that the exemption only operates in the following circumstances:
- (1) the *connection* is a *low voltage connection*; and
 - (2) the *connection* would not normally require *augmentation* of the *network* beyond the *extension* to the *distribution network* necessary to make the *connection*; and
 - (3) the *connection* is not expected to increase the *load* on the *distribution network* beyond a level the *Distribution Network Service Provider* could reasonably be expected to cope with in the ordinary course of managing the *distribution network*.
- (e) In developing the guidelines, the *AER* must have regard to:
- (1) historical and geographical differences between *networks*; and
 - (2) inter-jurisdictional differences related to regulatory control mechanisms, classification of services and other relevant matters; and
 - (3) the circumstances in which *connection services* may be provided by persons other than *Distribution Network Service Providers* (and are therefore *contestable*).
- (f) In developing guidelines dealing with the method for calculating the amount of a refund of *connection charges* paid before a *connection asset* becomes a shared asset, the *AER* must have regard to:
- (1) the *Distribution Network Service Provider's* obligation to make the refund; and
 - (2) future projections of *distribution network* expansion and usage and any consequent effect on the *Distribution Network Service Provider's* capacity to finance the acquisition of *augmentation* assets out of increased revenue; and
 - (3) the fact that the *Distribution Network Service Provider's* obligation to make the refund will expire after 7 years.

- (g) In developing guidelines under this clause, the *AER* must act in accordance with the *distribution consultation procedures*.

5A.E.4 Payment of connection charges

- (a) *Connection charges* payable in respect of a *connection service* must be paid to the *Distribution Network Service Provider* by the *retail customer's retailer* unless:
- (1) the *retailer* did not apply for the *connection service* and the *Distribution Network Service Provider* has notified the *retail customer* that the *customer* must pay the *connection charge* directly; or
 - (2) the *retail customer* asks to pay the *connection charge* directly and the *Distribution Network Service Provider* agrees; or
 - (3) the *Distribution Network Service Provider* and the *retailer* agree that the *Distribution Network Service Provider* is to recover the *connection charge* from the *retail customer*.
- (b) If the *retail customer* pays, or is required to pay, a *connection charge* directly to a *Distribution Network Service Provider* under paragraph (a), the *Distribution Network Service Provider* must not recover that charge from the *retail customer's retailer*.
- (c) The *Distribution Network Service Provider* must separately identify each *connection charge* on the statement or invoice to the *retailer*.

Note

Rule 25 of the *National Energy Retail Rules* requires the listing of *connection charges* that are passed through by a *retailer* to a retail customer in the customer's bill.

Part F Formation and integration of connection contracts

Division 1 Offer and acceptance – basic and standard connection services

5A.F.1 Distribution Network Service Provider's response to application

- (a) If the *connection service* sought by a *connection applicant* is a *basic connection service* or a *standard connection service* (and the applicant does not elect to apply for a negotiated *connection contract*), the *Distribution Network Service Provider* must make a *connection offer* to the applicant within:
- (1) 10 *business days* after receiving a properly completed application for the service and the additional information (if any) reasonably required under clause 5A.D.3(e); or

- (2) some other period agreed between the *Distribution Network Service Provider* and the *connection applicant*.
- (b) The *connection offer* must be in accordance with the relevant *model standing offer* and must include:
 - (1) the date of the offer; and
 - (2) details of the *connection service* to be provided; and
 - (3) a statement of the *connection charges* payable by the *connection applicant*.

5A.F.2 Acceptance of connection offer

- (a) A *connection offer* to provide a *basic connection service* or *standard connection service* remains open for acceptance for 45 *business days* from the date of the offer and, if not accepted within that period, lapses unless the period for acceptance is extended by agreement between the *connection applicant* and the *Distribution Network Service Provider*.
- (b) This clause does not apply if the *connection application* is for an expedited *connection*.

5A.F.3 Offer and acceptance—application for expedited connection

- (a) If:
 - (1) a *connection applicant* requests an expedited *connection* in the *connection application*; and
 - (2) the *Distribution Network Service Provider* is satisfied that the *connection application* is for a *basic connection service* or *standard connection service* that falls within the terms of the relevant *model standing offer*; and
 - (3) the *connection applicant* indicates in the *connection application* that a *connection offer* in terms of the relevant *model standing offer* would be acceptable to the applicant,

the *Distribution Network Service Provider* is taken to have made, and the *connection applicant* is taken to have accepted, a *connection offer* in terms of the relevant *model standing offer* on the date the *Distribution Network Service Provider* receives the application.

- (b) If a *connection applicant* applies for an expedited *connection* but the *Distribution Network Service Provider* does not agree that an offer in terms of any *model standing offer* is appropriate, the *Distribution Network Service Provider* must notify the *connection applicant* accordingly and draw the applicant's attention to the provisions of these *Rules* dealing with negotiated *connection*.

Division 2 Offer and acceptance – negotiated connection

5A.F.4 Negotiated connection offer

- (a) A *Distribution Network Service Provider* must use its best endeavours to make a ~~negotiated~~ *negotiated* connection offer to the connection applicant within 65 business days after the date of the ~~application for connection application~~ (including, for the avoidance of doubt, a *negotiated connection application*) being submitted (but the time taken by the applicant to provide information reasonably sought by the *Distribution Network Service Provider* under clause 5A.C.3(a)(2) or to rectify any rejected part of a negotiated connection application as advised by the *Distribution Network Service Provider* under clause 5A.C.3(a)(8) will not be counted where either can be demonstrated to delay the making of the offer).
- (b) A *Distribution Network Service Provider* shall be deemed to accept all parts of a negotiated connection application should the 65 day period lapse without response as required by either clause 5A.C.3 or 5A.D.3.
- ~~(c)~~ A ~~negotiated~~ *negotiated* connection offer:
- (1) must be in the form of an offer to enter into a contract in specified terms; and
 - (2) must comply with the minimum requirements set out in Schedule 5A.1.
- ~~(d)~~ If the connection applicant elected to extend the negotiations to supply services, the *negotiated* connection offer must contain terms and conditions relating to the supply services.
- ~~(e)~~ A ~~negotiated~~ *negotiated* connection offer must not include a connection charge that is inconsistent with either the *Distribution Network Service Provider's* connection policy or this Chapter.
- ~~(f)~~ A ~~negotiated~~ *negotiated* connection offer remains open for acceptance for 20 business days from the date of the offer and then lapses, unless:
- (1) the period for acceptance is extended by agreement between the *Distribution Network Service Provider* and the connection applicant;
or-
 - (2) the connection applicant requests access to the *Distribution Network Service Provider's* legal personnel in order to negotiate the offer terms and conditions (in which case the *Distribution Network Service Provider* must comply with the request), in which case the connection offer remains open until 20 business days after such negotiations have taken place.

Division 3 Formation of contract

5A.F.5 Acceptance of connection offer

- (a) If a *connection offer* to provide a *connection service* is accepted, the terms and conditions of the *connection offer*:
 - (1) become terms and conditions of a *connection contract* formed between the *Distribution Network Service Provider* and the *connection applicant*; and
 - (2) subject to rule 5A.F.6, are enforceable accordingly.
- (b) The *Distribution Network Service Provider* must, at the request of a *connection applicant*, provide a copy of:
 - (1) the contract formed under paragraph (a); or
 - (2) if that contract has been integrated with, and forms part of, a *customer connection* contract arising under the *NERL*—the integrated contract.

Division 4 Contractual performance

5A.F.6 Carrying out connection work

- (a) A *Distribution Network Service Provider* must use its best endeavours to ensure that *connection work* is carried out within the applicable *time* limits fixed by the relevant provisions of the *connection contract*.
- (b) However, a *Distribution Network Service Provider* is not obliged to commence or continue with *connection work* if the *connection applicant* fails to comply with conditions that are to be complied with by the *connection applicant*.

Examples

The *connection applicant* fails to pay *connection charges*.

The *connection applicant* fails to comply with technical or safety requirements.

The *connection applicant* fails to complete work that is to be carried out on the *connection applicant's* premises.

The *connection applicant* fails to comply with the *Distribution Network Service Provider's* reasonable request to allow the *Distribution Network Service Provider* safe and unhindered access to the applicant's premises.

5A.F.7 Retailer required for energisation where new connection

A *Distribution Network Service Provider* is not required to *energise* a *new connection* unless a request to *energise* the *new connection* is submitted by a *retailer*, or the *Distribution Network Service Provider* is otherwise satisfied that there is a relevant contract with a *retailer* in relation to the premises.

Part G Dispute resolution between Distribution Network Service Providers and customers

5A.G.1 Relevant disputes

(a) In this Part:

customer means:

- (a) a *retail customer*; or
- (b) a *real estate developer*.

relevant dispute means:

- (1) a dispute between a *Distribution Network Service Provider* and a *customer* about:
 - (i) the terms and conditions on which a *basic connection service* or a *standard connection service* is to be provided; or
 - (ii) the proposed or actual terms and conditions of a negotiated *connection contract*; or
 - (iii) the requirements of this Chapter and any material produced by a *Distribution Network Service Provider* subsequent to this Chapter; or
 - (2) a dispute between a *Distribution Network Service Provider* and a *customer* about *connection charges*.
- (b) A relevant dispute is an access dispute for the purposes of section 2A of the Law.

5A.G.2 Determination of dispute

- (a) In determining a relevant dispute, the *AER* must (so far as applicable) give effect to:
 - (1) the relevant *connection policy*; and
 - (2) a relevant *model standing offer* to provide a basic or *standard connection service*; and
 - (3) this Chapter and any other *applicable regulatory instrument*.
- (b) In determining a relevant dispute, the *AER* may also:
 - (1) have regard to other matters the *AER* considers relevant; and
 - (2) hear evidence or receive submissions from the *Distribution Network Service Provider* and the *customer*; and

- (3) if the dispute relates to a negotiated *connection contract* – have regard to the negotiation framework set out in clause 5A.C.3.

5A.G.3 Termination of proceedings

- (a) If the *AER* considers that a relevant dispute could be effectively resolved by some means other than an access determination, the *AER* may give the parties to the *dispute notice* of the alternative means of resolving the dispute.

Example

The *AER* might give such a notice if of the opinion that a particular dispute could be dealt with more efficiently, and with less expense, by a jurisdictional ombudsman.

- (b) The giving of such a notice is a specified dispute termination circumstance for the purposes of section 131(3) of the Law.

Note

It follows that the *AER* may exercise its power to terminate the dispute without making an access determination (See section 131(1)(d) of the Law).

SCHEDULE 5A.1 – Minimum content requirements for connection contract

Part A Connection offer not involving embedded generation

- (a) A *connection offer* must contain:
 - (1) a provision stating that a *connection contract* will be formed, and will come into operation, on acceptance of the *connection offer*; and
 - (2) details of the *connection point*, the maximum capacity of the *connection*, and the *connection assets* required at the *connection point*; and
 - (3) details of the *premises connection assets* and additional equipment to be installed on the premises and responsibility for undertaking the work; and
 - (4) details of any *distribution network extension* or other *augmentation* required for the purposes of the *connection*; and
 - (5) an undertaking to complete the work required to establish the *connection* within a specified *time frame*; and
 - (6) a requirement that the *retail customer* have appropriate *metering installed*; and
 - (7) the relevant technical and safety obligations to be met by the *retail customer* relating to the installation; and

- (8) the *retail customer's* obligation to allow access to the premises by the *Distribution Network Service Provider's* agents, contractors and employees; and
 - (9) the *retail customer's* obligation to accommodate on its premises, and protect from harm, any equipment necessary for the *connection*; and
 - (10) details of the *retail customer's* monetary obligations including billing arrangements and any security to be provided by the *customer*; and
 - (11) details of the *Distribution Network Service Provider's* monetary obligations (if any) to the *retail customer*; and
 - (12) a provision requiring the *Distribution Network Service Provider* to provide information about the *connection* to the *retail customer*; and
 - (13) provision for amendment of the *connection contract* by agreement between the *Distribution Network Service Provider* and the *retail customer*.
- (b) A *connection offer* that relates to *supply services* must also deal with:
- (1) the *Distribution Network Service Provider's* power to interrupt or reduce the *supply* of electricity to the *connection point*; and
 - (2) warranties and limitations on the *Distribution Network Service Provider's* liability; and
 - (3) *disconnection* and reconnection; and
 - (4) reporting and correction of faults; and
 - (5) dispute resolution; and
 - (6) ongoing *customer* obligations; and
 - (7) termination of the *connection contract*.

Part B Connection offer involving embedded generation

- (a) A *connection offer* to a person who operates, or proposes to operate, an *embedded generating unit* (the **embedded generator**) must contain:
- (1) a provision stating that a *connection contract* will be formed, and will come into operation, on acceptance of the *connection offer*; and
 - (2) details of the *connection point*, ~~the maximum capacity of the connection to import and export electricity~~ the level and standard of power transfer capability that the relevant network will provide along with the correlating network conditions, and the *embedded generator's* installation required at the *connection point*; and

- (3) details of the *premises connection assets* and additional equipment to be installed on the premises and responsibility for undertaking the work; and
- (4) details of any *distribution network extension* or other *augmentation* required for the purposes of the *connection*; and
- (5) an undertaking to complete the work required to establish the *connection* within a specified *time* frame; and
- (6) a requirement that the *embedded generator* have appropriate *metering installed*; and
- (7) the relevant technical and safety obligations to be met by the *embedded generator* relating to the installation; and
- (8) the *embedded generator's* obligation to allow access to the premises by the *Distribution Network Service Provider's* agents, contractors and employees; and
- (9) the *embedded generator's* obligation to accommodate on its premises, and protect from harm, any equipment necessary for the *connection*; and
- (10) details of the *embedded generator's* monetary obligations including billing arrangements and any security to be provided by the *embedded generator*; and
- (11) details of the *Distribution Network Service Provider's* monetary obligations (if any) to the *embedded generator*; and
- (12) a provision requiring the *Distribution Network Service Provider* to provide information about the *connection* to the *embedded generator*; and
- (13) provision for amendment of the *connection contract* by agreement between the *Distribution Network Service Provider* and the *embedded generator*; ~~and~~

(14) limitations on the *embedded generator's* liability.

- (b) A *connection contract* that relates to *supply services* must also deal with:
 - (1) the *Distribution Network Service Provider's* power to interrupt or reduce the *supply* of electricity to the *connection point*; and
 - (2) warranties and limitations on the *Distribution Network Service Provider's* liability; and
 - (3) *disconnection* and reconnection; and
 - (4) reporting and correction of faults; and

- (5) dispute resolution; and
- (6) ongoing obligations of the *Distribution Network Service Provider* and the *embedded generator*; and
- (7) termination of the *connection contract*.

SCHEDULE 5A.2 – Information to be provided to support a negotiated connection application

For the purpose of Clause 5A.C.3(a), the information that a *Distribution Network Service Provider* must provide to a *connection applicant* in respect to a proposed *negotiated connection application* includes:

- (a) The form and content of the *negotiated connection application* to be submitted and a good faith estimate of the cost for the *Distribution Network Service Provider* to process the application and provide a *negotiated connection offer*; and
- (b) The standard commercial terms to be incorporated in any subsequent *negotiated connection contract*; and
- (c) A statement for the need, or otherwise, for network studies to analyse the interaction of the proposed *non-registered embedded generator* with the *network* and to demonstrate compliance with the relevant technical standards; and
- (d) A proposal from the *Distribution Network Service Provider* to develop the *negotiated connection application* (including proposed costs, charges and timelines) and a corresponding statement notifying the applicant that they are free to prepare the application independently; and
- (e) A statement describing any interaction between the *Distribution Network Service Provider's* planning processes and the proposed project. For example, whether a proposed *embedded generator* could be used to mitigate local *network* investment; and
- (f) A statement as to whether the *embedded generator* will be considered under the *Distribution Network Service Provider's* demand management and embedded generation connection incentive scheme, including any other relevant information to facilitate this; and
- (g) Where network studies are required the *Distribution Network Service Provider* must also provide all relevant technical information including, but not limited to:
 - (1) The *Distribution Network Service Provider's* proposed technical standards including permissible limits for:
 - (i) voltage ranges at the proposed *connection point* and within the associated *network*; and
 - (ii) single and three phase fault levels at the proposed *connection point* and for relevant *network elements* as appropriate; and
 - (iii) voltage harmonic and voltage flicker emissions at the proposed *connection point*; and

(5) Metering installation requirements.

(i) Interface requirements including:

- (1) Project specific protection schemes to be included as part of the proposed generating system (e.g. inter-trip, anti-islanding); and
- (2) Protection and communication equipment integration and interface requirements including media, interface point/s and monitored variables where applicable; and
- (3) Technical specifications for any interface equipment required as a component of the proposed generating system, or within the property that contains the proposed generating system, including any arrangements to provide access to such equipment; and
- (4) Network control schemes which can be reasonably expected to affect the distribution network user access arrangements sought by the Connection Applicant; and
- (5) Switching and isolation facilities.

(j) A Distribution Network Service Provider that publishes any of information outlined in this Schedule on its website, or where such information can be derived from relevant Australian standards or planning documentation, complies with its obligation to disclose such information if it refers the enquirer to the relevant publicly accessible reference.