



National Electricity Amendment (Connecting embedded generators) Rule 2014 No. 3

Under the National Electricity Law to the extent applied by:

- (a) the National Electricity (South Australia) Act 1996 of South Australia;
- (b) the Electricity (National Scheme) Act 1997 of the Australian Capital Territory;
- (c) the Electricity - National Scheme (Queensland) Act 1997 of Queensland;
- (d) the Electricity - National Scheme (Tasmania) Act 1999 of Tasmania;
- (e) the National Electricity (New South Wales) Act 1997 of New South Wales;
- (f) the National Electricity (Victoria) Act 2005 of Victoria; and
- (g) the Australian Energy Market Act 2004 of the Commonwealth,

the Australian Energy Market Commission makes the following Rule under the National Electricity Law.

John Pierce
Chairman
Australian Energy Market Commission

National Electricity Amendment (Connecting embedded generators) Rule 2014 No. 3

1 Title of Rule

This Rule is the *National Electricity Amendment (Connecting embedded generators) Rule 2014 No.3*.

2 Commencement

This Rule commences operation on 1 October 2014.

3 Amendment of the National Electricity Rules

The National Electricity Rules are amended as set out in Schedule 1.

4 Amendment of the National Electricity Rules

The National Electricity Rules are amended as set out in Schedule 2.

5 Amendment to the National Electricity Rules

The National Electricity Rules are amended as set out in Schedule 3.

6 Amendment to the National Electricity Rules

The National Electricity Rules are amended as set out in Schedule 4.

7 Saving and Transitional Amendments to the National Electricity Rules

The National Electricity Rules are amended as set out in Schedule 5.

Schedule 1 Amendment to the National Electricity Rules

(Clause 3)

[1] Clause 5.1.2 Purpose

In the heading of clause 5.1.2, insert "and Application" after "Purpose".

[2] Clause 5.2.3 Obligations of network service providers

In clauses 5.2.3(d)(1), 5.2.3(d)(1A) and 5.2.3(d)(10) omit "rule 5.3" and insert "rules 5.3 or 5.3A (as is relevant)".

[3] New Clause 5.3.1A Application of rule to connection of embedded generating units

After clause 5.3.1, insert:

5.3.1A Application of rule to connection of embedded generating units

- (a) If a *Connection Applicant* wishes to *connect* an *embedded generating unit*, then:
- (1) unless otherwise provided, rule 5.3A applies to the proposed *connection* and clauses 5.3.2, 5.3.3, 5.3.4 and 5.3.5 do not apply to the proposed *connection*; and
 - (2) for the avoidance of doubt, the application of the balance of Chapter 5, Part A to the *Connection Applicant* is otherwise unaffected by this clause 5.3.1A.
- (b) A reference to a *Connection Applicant* in paragraph (a) is to a person who:
- (1) intends to be an *Embedded Generator*; or
 - (2) is required to apply to *AEMO* for an exemption from the requirement to register as a *Generator* in respect of an *embedded generating unit*; and
 - (3) who makes a *connection* enquiry under clause 5.3A.5 or an *application to connect* under clause 5.3A.9 in relation to any *generating systems*, or any *network elements* used in the provision of a *network service*, as the case may be.

[4] Clause 5.3.3 Response to connection enquiry

In clause 5.3.3(b)(3)(i) omit "or must be involved under clause 5.3.5(e)".

[5] Clause 5.3.3 Response to connection enquiry

In clause 5.3.3(c)(4), omit "6.6 and 6.7" and insert "6.21 and 6A.28".

[6] Clause 5.3.4A Negotiated Access Standards

In clause 5.3.4A(b)(1), omit "clause 5.3.3(b1)(4)" and insert "clauses 5.3.3(b1)(4) or S5.4B(e)".

[7] Clause 5.3.4A Negotiated Access Standards

In clause 5.3.4A(c), omit "or paragraph (h)" and insert ", clause 5.3A.9(f) or paragraph (h)(3)".

[8] Clause 5.3.4A Negotiated Access Standards

In clauses 5.3.4A(d) and 5.3.4A(e), omit "or paragraph (h)(3)" and insert ", clause 5.3A.9(f) or paragraph (h)(3)".

[9] Clause 5.3.5 Preparation of offer to connect

Omit clauses 5.3.5(e) and (f).

[10] Clause 5.3.6 Offer to connect

Omit clause 5.3.6(a) and substitute:

- (a) A *Network Service Provider* processing an *application to connect* must make an offer to *connect* the *Connection Applicant's facilities* to the *network* within the following timeframes:
 - (1) where the *application to connect* was made under clause 5.3.4(a), the timeframe specified in the *preliminary program*, subject to clause 5.3.3(b)(6); and
 - (2) where the *application to connect* was made under clause 5.3A.9(b)(2), a period of time no longer than 4 months from the date of receipt of the *application to connect* and any additional information requested under clause 5.3A.9(d), unless agreed otherwise.

[11] Clause 5.3.6 Offer to connect

In clause 5.3.6(a1), omit "clause 5.3.6(a)" and substitute "paragraph (a)(1)".

[12] Clause 5.3.6 Offer to connect

After clause 5.3.6(a1), insert:

- (a2) In relation to the timeframes fixed in paragraph (a)(2), for the purposes of calculating elapsed time, the period that:

- (1) commences on the day when a dispute is initiated under clause 8.2.4(a); and
 - (2) ends on the day on which the dispute is withdrawn or is resolved in accordance with clauses 8.2.6D or 8.2.9(a),
- is to be disregarded.

[13] Clause 5.3.6 Offer to connect

In clause 5.3.6(b), omit "The" and insert "In relation to an *application to connect* made under clause 5.3.4(a), the".

[14] Clause 5.3.6 Offer to connect

After clause 5.3.6(b1), insert:

- (b2) An offer to *connect* made under paragraph (a)(2), must be accompanied by:
 - (1) so far as is relevant, and in relation to services the *Distribution Network Service Provider* intends to provide, an itemised statement of *connection* costs including:
 - (i) *connection service* charges;
 - (ii) costs associated with *metering* requirements contained in the offer to *connect*;
 - (iii) costs of *network extension*;
 - (iv) details of *augmentation* required to provide the *connection* and associated costs;
 - (v) details of the interface equipment required to provide the *connection* and associated costs;
 - (vi) details of any ongoing operation and maintenance costs and charges by the *Distribution Network Service Provider*; and
 - (vii) other incidental costs and their basis of calculation;
 - (2) if any item in the statement of costs in subparagraph (1) differs substantially from the estimate provided under clause S5.4B(h), an explanation of the differences;
 - (3) a *connection agreement* capable of execution by the *Connection Applicant*, which must contain the proposed terms and conditions for *connection* to the *distribution network* (of the kind set out in Schedule 5.6) including, for each technical requirement identified by the *Distribution Network Service*

Provider in the detailed response provided under clause 5.3A.8(c), the *automatic access standard* or the *negotiated access standard* as determined in accordance with clause 5.3.4A; and

- (4) an explanation:
 - (i) of how the offer to *connect* can be accepted; and
 - (ii) that the offer to *connect* remains open for 20 *business days*, unless otherwise agreed.

- (b3) An offer to *connect* made under paragraph (a)(2) must remain open for acceptance for 20 *business days* from the date it is made and, if not accepted within that period, lapses unless the *Connection Applicant* has sought an extension of the period of time from the *Distribution Network Service Provider*. The *Distribution Network Service Provider* may not unreasonably withhold consent to the extension.

[15] Clause 5.3.7 Finalisation of connection agreements

In clause 5.3.7(a), insert "or clauses S5.4.A(d) and (e)" after "clauses 5.3.3(b)(3) and (4)".

[16] Clause 5.3.8 Provision and use of information

In clause 5.3.8, omit "this rule 5.3" wherever occurring and insert "rules 5.3 and 5.3A" in each case.

[17] New Rule 5.3A Establishing or modifying connection - embedded generation

After rule 5.3, insert:

5.3A Establishing or modifying connection - embedded generation

5.3A.1 Application of rule 5.3A

- (a) Where a *Connection Applicant* wishes to connect an *embedded generating unit*, this rule 5.3A applies.
- (b) For the purposes of this rule 5.3A and Schedules 5.4A and 5.4B:
 - (1) a reference to a *Connection Applicant* is to a person who:
 - (i) intends to be an *Embedded Generator*; or

- (ii) is required to apply to *AEMO* for exemption from the requirement to register as a *Generator* in respect of an *embedded generating unit*; and
 - (iii) who makes a *connection* enquiry under clause 5.3A.5 or an *application to connect* under clause 5.3A.9 in relation to any *generating systems*, or any *network elements* used in the provision of a *network service*, as the case may be; and
- (2) the *Distribution Network Service Provider* is the *Distribution Network Service Provider* required under clause 5.3A.5 to process and respond to a *connection* enquiry or required under clause 5.3A.10 to prepare an offer to *connect* for the establishment or modification of a *connection* to the *distribution network* owned, controlled or operated by that *Distribution Network Service Provider* or for the provision of a *network service*.

5.3A.2 Definitions and miscellaneous

- (a) In this rule 5.3A and Schedules 5.4A and 5.4B:

detailed response means the response to a *connection* enquiry prepared under clause 5.3A.8.

establish a connection has the same meaning as in clause 5.3.1.

information pack means information relevant to the making of an *application to connect* specified in clause 5.3A.3(b).

preliminary response means the response to a *connection* enquiry prepared under clause 5.3A.7.

sub-transmission line has the same meaning as in clause 5.10.2.

zone substation has the same meaning as in clause 5.10.2.

- (b) To the extent a *Distribution Network Service Provider* has provided information required to be provided under this clause 5.3A by the inclusion of that information in:

- (1) its demand side engagement document under clause 5.13.1(g);
or

- (2) a *Distribution Annual Planning Report*,

it will comply with the relevant information provision requirements of rule 5.3A by including hyperlinks to the relevant information in information provided to a *Connection Applicant*,

- (c) Where this rule 5.3A fixes a time limit for the provision of information or a response then, for the purposes of calculating elapsed time, the period that:
- (1) commences on the day when a dispute is initiated under clause 8.2.4(a); and
 - (2) ends on the day on which the dispute is withdrawn or is resolved in accordance with clauses 8.2.6D or 8.2.9(a),
- is to be disregarded.

5.3A.3 Publication of Information

- (a) A *Distribution Network Service Provider* must *publish* the following in the same location on its website:
- (1) an enquiry form for *connection* of an *embedded generating unit*;
 - (2) a register of completed embedded generation projects under clause 5.4.5; and
 - (3) an information pack.
- (b) An information pack must include:
- (1) a description of the process for lodging an *application to connect* for an *embedded generating unit*, including:
 - (i) the purpose of each stage of the *connection* enquiry and application processes;
 - (ii) the steps a *Connection Applicant* will need to follow at each stage of the *connection* enquiry and application processes;
 - (iii) the information that is to be included by the *Connection Applicant* with a *connection* enquiry and the information that will be made available to the *Connection Applicant* by the *Distribution Network Service Provider* at each stage of the *connection* enquiry;
 - (iv) the information that is to be included with an *application to connect* and the type of information that will be made available to the *Connection Applicant* by the *Distribution Network Service Provider* after lodgement of the application;
 - (v) the factors taken into account by the *Distribution Network Service Provider*, at each stage of the

- connection* enquiry and application, when assessing an *application to connect* for an *embedded generating unit*;
- (vi) the process for negotiating *negotiated access standards* under clause 5.3.4A and a summary of the factors the *Distribution Network Service Provider* takes into account when considering proposed *negotiated access standards*; and
 - (vii) a list of services, if any, relevant to the *connection* that are *contestable* in the relevant *participating jurisdiction*;
- (2) single line diagrams of the *Distribution Network Service Provider's* preferred *connection* arrangements, and a range of other possible *connection* arrangements for integration of an *embedded generating unit*, showing the *connection point*, the point of common coupling, the *embedded generating unit(s)*, *load(s)*, *meter(s)*, circuit breaker(s) and isolator(s);
 - (3) a sample schematic diagram of the *protection system* and *control system* relevant to the *connection* of an *embedded generating unit* to the *distribution network*, showing the *protection system* and *control system*, including all relevant current circuits, relay potential circuits, alarm and monitoring circuits, back-up systems and parameters of protection and *control system* elements;
 - (4) worked examples of *connection service charges*, enquiry and application fees for the *connection* of *embedded generating units*, based on the preferred and possible *connection* arrangements set out in paragraph (b)(2);
 - (5) details of any *minimum access standards* or *plant standards* the *Distribution Network Service Provider* considers are applicable to *embedded generating units* and *generating plant*;
 - (6) technical requirements relevant to the processing of a *connection* enquiry or an *application to connect*, including information of the type, but not limited to:
 - (i) *protection systems* and protection schemes;
 - (ii) fault level management principles;
 - (iii) *reactive power capability* and *power factor* correction;
 - (iv) power quality and how limits are allocated;
 - (v) responses to *frequency* and *voltage* disturbances;
 - (vi) *voltage* control and regulation;

- (vii) *remote monitoring equipment*, control and communication requirements;
 - (viii) earthing requirements and other relevant safety requirements;
 - (ix) circumstances in which *augmentation* may be required to facilitate integration of an *embedded generating unit* into the *network*; and
 - (x) commissioning and testing requirements; and
- (7) model *connection agreements* used by that *Distribution Network Service Provider*.

5.3A.4 Fees

- (a) A *Distribution Network Service Provider* may charge a *Connection Applicant* an enquiry fee, the amount of which must not be more than necessary to cover the reasonable costs of work required to prepare a detailed response to the enquiry.
- (b) The *Distribution Network Service Provider* may specify that an enquiry fee is payable in components.
- (c) The enquiry fee, or such component of it identified by the *Distribution Network Service Provider*, is payable either:
 - (1) on lodgement of the further information identified in S5.4A(o); or
 - (2) on receipt of advice from the *Distribution Network Service Provider* provided pursuant to clause 5.3A.7(b).
- (d) A *Distribution Network Service Provider* must not charge a fee for the provision of a preliminary response.
- (e) A *Distribution Network Service Provider* may charge an application fee, payable on lodgement of an *application to connect*, provided that the fee must not:
 - (1) include an amount for work that was completed in preparing the detailed response to the enquiry; and
 - (2) be more than necessary to:
 - (i) cover the costs of work and expenses reasonably incurred by the *Distribution Network Service Provider* in assessing the *application to connect* and making an offer to *connect*; and

- (ii) meet the reasonable costs anticipated to be incurred by *AEMO* and other *Network Service Providers* whose participation in the assessment of the *application to connect* will be required.

5.3A.5 Enquiry

- (a) A *Connection Applicant* who wishes to make an *application to connect* must first make a *connection enquiry* with the *Local Network Service Provider*.
- (b) Subject to paragraph (c), an enquiry must be in the form determined by the *Local Network Service Provider*.
- (c) An enquiry form under paragraph (b) must require the *Connection Applicant* to provide:
 - (1) a qualitative description of the objectives of the project proposal the subject of the *application to connect*;
 - (2) the information specified in Schedule 5.4; and
 - (3) a list of the information required from the *Local Network Service Provider* in relation to its *application to connect* and supporting reasons for its requests.
- (d) A *Local Network Service Provider* must, within 5 *business days* after receiving an enquiry, provide written acknowledgment of receipt of the *connection enquiry*.
- (e) If the *Local Network Service Provider* considers that the *connection enquiry* should be jointly examined by more than one *Distribution Network Service Provider*, then, with the agreement of the *Connection Applicant*, one of those *Distribution Network Service Providers* may be allocated the task of liaising with the *Connection Applicant* and the other *Distribution Network Service Providers* to process and respond to the enquiry.
- (f) If the enquiry is incomplete in a material respect, or the *Connection Applicant* has lodged an enquiry other than in accordance with the form determined by a *Local Network Service Provider*, that *Local Network Service Provider* must, within 5 *business days* after receipt of the enquiry, advise the *Connection Applicant* of the deficiency, and may require the *Connection Applicant* to provide the necessary information.
- (g) A *Connection Applicant* may request in a *connection enquiry* made under paragraph (a), that the *Local Network Service Provider* provide only a detailed response under clause 5.3A.8(c) to its enquiry. The *Local Network Service Provider* must, within 5 *business days* after receipt of the enquiry and all such additional

information (if any) requested under paragraph (f), advise the *Connection Applicant* if it agrees to the request.

5.3A.6 Response to Enquiry

- (a) In response to a *connection* enquiry, the *Distribution Network Service Provider* must provide:
 - (1) subject to clause 5.3A.5(g) or receiving any further information requested under clause 5.3A.5(f), a preliminary response; and
 - (2) subject to receiving the enquiry fee and the further information requested under clause 5.3A.8(b), if relevant, a detailed response.
- (b) In preparing either the detailed response or preliminary response, the *Distribution Network Service Provider* must liaise with other *Network Service Providers* with whom it has *connection agreements*, if the *Distribution Network Service Provider* believes, in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected. The *Distribution Network Service Provider* responding to the *connection* enquiry may include in its preliminary response or detailed response, the reasonable requirements of any such other *Network Service Providers* for information to be provided by the *Connection Applicant*.

5.3A.7 Preliminary Response to Enquiry

- (a) Unless agreed otherwise, a preliminary response must:
 - (1) be provided within 15 *business days* of receipt of a *connection* enquiry and all such additional information (if any) requested under clause 5.3A.5(f); and
 - (2) include the information specified in Schedule 5.4A.
- (b) If the *Distribution Network Service Provider* has agreed under clause 5.3A.5(g) to not provide a preliminary response, it must advise the *Connection Applicant* of the:
 - (1) estimate of the enquiry fee payable by the *Connection Applicant* for the detailed response, including details of how components of the fee were calculated; and
 - (2) the component of the estimate of the enquiry fee payable by the *Connection Applicant* to request the detailed response,

within 15 *business days* of receipt of a *connection* enquiry and all such additional information (if any) requested under clause 5.3A.5(f), unless agreed otherwise.

- (c) A *Distribution Network Service Provider* may seek an extension of a time period specified in paragraphs (a) or (b) by giving notice, in writing to the *Connection Applicant*, specifying the reasons required for the extension. The *Connection Applicant* may not unreasonably withhold consent to that extension.
- (d) Nothing in paragraph (a) or Schedule 5.4A is to be read or construed as requiring the *Distribution Network Service Provider* to undertake detailed design or to perform detailed technical studies or analysis to prepare a preliminary response.

5.3A.8 Detailed Response to Enquiry

- (a) Subject to clause 5.3A.5(g), a *Distribution Network Service Provider* must within 5 *business days* after receiving the further information identified in clause S5.4A(o) provide written acknowledgment of receipt of it.
- (b) If the further information provided under paragraph (a) is incomplete in a material respect the *Distribution Network Service Provider* must within 10 *business days* after receipt of it, advise the *Connection Applicant* of the deficiency and what is required to address it.
- (c) Unless:
 - (1) agreed otherwise; or
 - (2) the proposed *connection* requires the application of the *regulatory investment test for distribution*,the *Distribution Network Service Provider* must provide a detailed response within 30 *business days* of the date specified under paragraph (d).
- (d) For the purposes of paragraph (c), the relevant date is the date on which the *Distribution Network Service Provider* has received all of the following:
 - (1) the enquiry fee, or any component of the enquiry fee requested by the *Distribution Network Service Provider*;
 - (2) if the *Connection Applicant* was required to remedy a deficiency in further information provided under paragraph (b), that further information; and
 - (3) if the *Connection Applicant* was required under clause S5.4A(o) to provide further information, that information.

- (e) A *Distribution Network Service Provider* may seek an extension of the time period specified in paragraph (c) by giving notice, in writing to the *Connection Applicant*, specifying the reasons required for the extension. The *Connection Applicant* may not unreasonably withhold consent to that extension.
- (f) Where the proposed *connection* requires the application of the *regulatory investment test for distribution*, the *Distribution Network Service Provider* and the *Connection Applicant* are to agree a timeframe for the provision of a detailed response, taking into account the status of the relevant RIT-D project (as defined in clause 5.10.2).
- (g) A detailed response must include the information specified in:
 - (1) paragraphs (f), (g) and (m) of Schedule 5.4B;
 - (2) paragraphs (a) - (e), (h) – (l) and (n)-(o) of Schedule 5.4B.

Note

Clause 5.3A.8(g) requires that a detailed response include all information specified in Schedule 5.4B. The above division may be of relevance for enforcement purposes only.

- (h) A *Connection Applicant* that is a *Registered Participant*, *AEMO* or an *interested party* may make a request in relation to technical requirements for access to the *Reliability Panel* in accordance with clause 5.3.3(b2)-(b4).

5.3A.9 Application for connection

- (a) Following receipt of a detailed response under clause 5.3A.8, a *Connection Applicant* may make an *application to connect* in accordance with this clause 5.3A.9 and clause 5.3.4A.
- (b) To be eligible for *connection*, the *Connection Applicant* must submit an *application to connect* containing the information specified in the detailed response provided under clause 5.3A.8(c) and the application fee specified under clause S5.4B(m) to the *Distribution Network Service Provider*.
- (c) The *Connection Applicant* may submit an *application to connect* to more than one *Distribution Network Service Provider* in order to receive additional offers to *connect* in respect of facilities to be provided that are *contestable*.
- (d) If the *application to connect* is incomplete in a material respect the *Distribution Network Service Provider* must, within 10 *business days* after receipt of it, advise the *Connection Applicant* of the deficiency, and the steps required to address it.

- (e) To the extent that an application fee includes amounts to meet the reasonable costs anticipated to be incurred by any other *Network Service Providers* or *AEMO* in the assessment of the *application to connect*, a *Distribution Network Service Provider* who receives the *application to connect* and associated fee must pay such amounts to the other *Network Service Providers* or *AEMO*, as appropriate.
- (f) For each technical requirement where the proposed arrangement will not meet the *automatic access standards* nominated by the *Distribution Network Service Provider* pursuant to clause S5.4B(b), the *Connection Applicant* must submit with the *application to connect* a proposal for a *negotiated access standard* for each such requirement to be determined in accordance with clause 5.3.4A.
- (g) The *Connection Applicant* may:
 - (1) lodge separate *applications to connect* and separately liaise with the other *Network Service Providers* identified in clause 5.3A.5(e) who may require a form of agreement; or
 - (2) lodge one *application to connect* with the *Distribution Network Service Provider* who processed the *connection enquiry* and require it to liaise with those other *Network Service Providers* and obtain and present all necessary draft agreements to the *Connection Applicant*.

5.3A.10 Preparation of offer to connect

- (a) The *Distribution Network Service Provider* to whom the *application to connect* is submitted under clause 5.3A.9(a):
 - (1) at the *automatic access standard*; or
 - (2) at a *negotiated access standard* that the provider has accepted under clause 5.3.4A(e),must proceed to prepare an offer to *connect* in response.
- (b) So as to maintain levels of service and quality of *supply* to existing *Registered Participants* in accordance with the *Rules*, the *Distribution Network Service Provider* in preparing the offer to *connect* must consult with *AEMO* and other *Registered Participants* with whom it has *connection agreements*, if the *Distribution Network Service Provider* believes in its reasonable opinion, that compliance with the terms and conditions of those *connection agreements* will be affected, in order to assess the *application to connect* and determine:
 - (1) the technical requirements for the equipment to be *connected*;

- (2) the extent and cost of *augmentations* and changes to all affected *networks*;
 - (3) any consequent change in *network service* charges; and
 - (4) any possible material effect of this new *connection* on the *network power transfer capability* including that of other *networks*.
- (c) If the *application to connect* involves the *connection of embedded generating units* having a nameplate rating of 10 MW or greater, the *Distribution Network Service Provider* must consult the relevant *Transmission Network Service Provider* regarding the impact of the *connection* contemplated by the *application to connect* on fault levels, line reclosure protocols, and stability aspects.
- (d) The *Transmission Network Service Provider* consulted under paragraph (c) must determine the reasonable costs of addressing those matters for inclusion in the offer to *connect* and the *Distribution Network Service Provider* must make it a condition of the offer to *connect* that the *Connection Applicant* pay these costs.
- (e) The *Distribution Network Service Provider* preparing the offer to *connect* must include provision for payment of the reasonable costs associated with *remote control equipment* and *remote monitoring equipment* as required by *AEMO* and it may be a condition of the offer to *connect* that the *Connection Applicant* pay these costs.

5.3A.11 Technical Dispute

- (a) Rule 8.2 applies to any dispute between a *Distribution Network Service Provider* and a *Connection Applicant* as to the technical requirements to establish or modify a *connection* sought by a *Connection Applicant* in a *connection* enquiry made under clause 5.3A.5 or an *application to connect* under clause 5.3A.9.

[18] New Clause 5.4.5 Register of compliant equipment

After clause 5.4.4, insert:

5.4.5 Register of completed embedded generation projects

- (a) For the purposes of this clause 5.4.5:

completed embedded generation projects means all *embedded generating units* owned, operated or controlled by:

- (1) a *Generator*; or

- (2) a person who was required to apply to *AEMO* for an exemption from the requirement to register as a *Generator* in respect of an *embedded generating unit*,
- (3) and are connected to the *Distribution Network Service Provider's network*.

DAPR date has the same meaning as in clause 5.13.2.

- (b) In relation to completed embedded generation projects, a *Distribution Network Service Provider* must establish and *publish*, on its website, a register of the *plant*, including but not limited to:
 - (1) technology of *generating unit* (e.g. *synchronous generating unit*, induction generator, photovoltaic array, etc) and its make and model;
 - (2) maximum power *generation* capacity of all *embedded generating units* comprised in the relevant *generating system*;
 - (3) contribution to fault levels;
 - (4) the size and rating of the relevant *transformer*;
 - (5) a single line diagram of the *connection* arrangement;
 - (6) *protection systems* and communication systems;
 - (7) *voltage* control and *reactive power capability*; and
 - (8) details specific to the location of a *facility connected* to the *network* that are relevant to any of the details in subparagraphs (1)-(7).
- (c) Subject to satisfying any relevant exemptions contained in clause 8.6.2, the *Distribution Network Service Provider* must not *publish confidential information* as part of, or in connection with, the register.
- (d) The *Distribution Network Service Provider* must:
 - (1) include in the register the details contained in paragraph (b) for all completed embedded generation projects within the 5 year period preceding the establishment of the register; and
 - (2) update the register by the DAPR date each year thereafter with details of all completed embedded generation projects in the 5 year period preceding the review date.

[19] Clause 5.5 Access arrangements relating to Distribution Networks

In clause 5.5(a)(1) omit "clause 5.3.3" and insert "clauses 5.3.3 or 5.3A.5".

[20] Clause 5.5 Access arrangements relating to Distribution Networks

In clause 5.5(a)(1) omit "clause 5.3.5" and insert "clauses 5.3.5 or 5.3A.10".

[21] Clause 5.5 Access arrangements relating to Distribution Networks

In clause 5.5(a)(2) omit "clause 5.3.2" and insert "clauses 5.3.2 or 5.3A.5".

[22] Clause 5.5 Access arrangements relating to Distribution Networks

In clause 5.5(a)(2) omit "clause 5.3.4" and insert "clauses 5.3.4 or 5.3A.10".

[23] Schedule 5.8 Distribution Annual Planning Report

Omit S5.8(1) and insert:

- (1) information on the *Distribution Network Service Provider's* demand management activities, including:
 - (1) a qualitative summary of:
 - (i) non-network options that have been considered in the past year, including *generation* from *embedded generating units*;
 - (ii) key issues arising from *applications to connect embedded generating units* received in the past year;
 - (iii) actions taken to promote non-network proposals in the preceding year, including *generation* from *embedded generating units*; and
 - (iv) the *Distribution Network Service Provider's* plans for demand management and *generation* from *embedded generating units* over the forward planning period;
 - (2) a quantitative summary of:
 - (i) *connection* enquiries received under clause 5.3A.5;
 - (ii) *applications to connect* received under clause 5.3A.9; and

- (iii) the average time taken to complete *applications to connect*;

Schedule 2 Amendment to the National Electricity Rules

(Clause 4)

[1] Schedule 5.4A Preliminary Response

After Schedule 5.4 insert:

Schedule 5.4A Preliminary Response

For the purposes of clause 5.3A.7(a), the following information must be included in the preliminary response:

- (a) relevant technical information about the *Distribution Network Service Provider's distribution network*, including guidance on how the *Connection Applicant* may meet the following requirements if it were to proceed to prepare an *application to connect*:
 - (1) primary protection and backup protection;
 - (2) other protection and control requirements applicable to *embedded generating units* and associated *plant*;
 - (3) *remote monitoring equipment* and control communications *facilities*;
 - (4) insulation co-ordination and lightning protection;
 - (5) existing maximum and minimum fault levels and *fault clearance times* of relevant local zone substations;
 - (6) switching and *isolation* facilities;
 - (7) interlocking and *synchronising* arrangements; and
 - (8) *metering installations*;
- (b) if not otherwise provided in accordance with paragraph (a), to the extent the *Distribution Network Service Provider* holds technical information necessary to prepare an *application to connect*, that information;
- (c) information relevant to each technical requirement of the proposed *plant* as relevant to:
 - (1) the *automatic access standards*;
 - (2) any relevant *minimum access standards*;
 - (3) any applicable *plant standards*; and

- (4) the *normal voltage* level, if it is expected to change from the *nominal voltage* level;
- (d) the identity of other parties that the *Distribution Network Service Provider* considers:
 - (1) will need to be involved in planning to make the *connection* or must be involved under clause 5.3A.10(c); and
 - (2) must be paid for *transmission services* or *distribution services*;
- (e) whether it will be necessary for any of the parties identified in subparagraph (d) to enter into an agreement with the *Connection Applicant* in respect of the provision of *connection services* or other *transmission services* or *distribution services* or both, to the Connection Applicant;
- (f) where relevant the *Distribution Network Service Provider* is to identify whether any service required to establish a *connection* is *contestable* in the relevant *participating jurisdiction*;
- (g) worked examples of *connection service* charges relevant to the enquiry and an explanation of the factors on which the charges depend;
- (h) information regarding the *Distribution Network Service Provider* and its *network*, system limitations for sub-transmission lines and zone substations and other information relevant to constraints on the *network* as such information is relevant to the *application to connect*;
- (i) an indication of whether *network augmentation* may be required and if required, what work the *network augmentation* may involve;
- (j) a hyperlink to the *Distribution Network Service Provider's* information pack;
- (k) the contact details for the relevant point of contact within the *Distribution Network Service Provider* managing the *connection* enquiry;
- (l) the *Distribution Network Service Provider's* response to the objectives of the *connection* sought as included by the *Connection Applicant* in its enquiry under clause 5.3A.5(c)(1);
- (m) a description of the process for the provision of the detailed response, including the further information to be provided by the *Connection Applicant* and analysis to be undertaken by the *Distribution Network Service Provider* as part of the preparation of the detailed response;

- (n) an overview of any available options for *connection* to the *Distribution Network Service Provider's network*, as relevant to an enquiry lodged, at more than one *connection point* in a *network*, including:
 - (1) example single line diagram and relevant *protection systems* and *control systems* used by existing *connection* arrangements;
 - (2) a description of the characteristics of supply; and
 - (3) an indication of the likely impact on terms and conditions of *connection*,as relevant to each optional differing *connection point*;
- (o) a statement of further information required from the *Connection Applicant* for the preparation of the detailed response, including:
 - (1) details of the *Connection Applicant's connection* requirements, and the *Connection Applicant's* specifications of the *facility* to be *connected*, consistent with the requirements advised in accordance with paragraphs (a) to (c); and
 - (2) details of the *Connection Applicant's* reasonable expectations of the level and standard of service of *power transfer capability* that the *network* should provide;
- (p) an estimate of the enquiry fee payable by the *Connection Applicant* for the detailed response, including details of how components of the fee were calculated;
- (q) the component of the estimate of the enquiry fee payable by the *Connection Applicant* to request the detailed response;
- (r) an estimate of the application fee which is payable on submitting an *application to connect*; and
- (s) any additional information relevant to the enquiry.

Schedule 5.4B Detailed Response to Enquiry

For the purposes of clause 5.3A.8(g), the following information must be included in the detailed response:

- (a) the contact details for the relevant point of contact within the *Distribution Network Service Provider* who will manage the *application to connect*;
- (b) written details of each technical requirement relevant to the proposed *plant* as relevant to the:

- (1) *automatic access standards*;
 - (2) *minimum access standards*;
 - (3) any applicable *plant standards*; and
 - (4) *normal voltage level*, if that is to change from the *nominal voltage level*;
- (c) details of the *connection requirements* based on the *Connection Applicant's specifications* of the *facility to be connected*;
 - (d) details of the level and standard of service of *power transfer capability* that the *Distribution Network Service Provider*, with reasonable endeavours, considers the *network* provides at the location of the *connection point* or *connection points*, if options have been made available under clause S5.4A(n);
 - (e) *negotiated access standards* that will require *AEMO's involvement* in accordance with clause 5.3.4A(c);
 - (f) a list of the technical data to be included with the *application to connect*, which may vary depending on the *connection requirements* and the type, rating and location of the *facility to be connected*. The list provided under this paragraph (f) will generally be in the nature of the information set out in schedule 5.5 but may be varied by the *Distribution Network Service Provider* as appropriate to suit the size and complexity of the proposed *facility to be connected*;
 - (g) commercial information to be supplied by the *Connection Applicant* to allow a *Network Service Provider* (as is relevant) to make an assessment of the ability of the *Connection Applicant* to satisfy the prudential requirements set out in rules 6.21 and 6A.28;
 - (h) so far as is relevant, and in relation to services that the *Distribution Network Service Provider* intends to provide, an itemised estimate of *connection costs* including:
 - (1) *connection services charges*;
 - (2) costs associated with the proposed *metering requirements* for the *connection*;
 - (3) costs of any *network extension*;
 - (4) details of *augmentation* required to provide the *connection* and associated costs;
 - (5) details of the interface equipment required to provide the *connection* and associated costs;

- (6) details of any ongoing operation and maintenance costs and charges to be undertaken by the *Distribution Network Service Provider*; and
- (7) other incidental costs and their basis of calculation;
- (i) an explanation of the factors affecting each component of the itemised estimate of *connection* costs and the further information that will be taken into account by the *Distribution Network Service Provider* in preparing the final itemised statement of *connection* costs to be provided under clause 5.3.6(b2)(1);
- (j) using reasonable endeavours, all risks and obligations in respect of the proposed *connection* associated with planning and environmental laws not contained in the *Rules*;
- (k) a draft *connection agreement* that contains the proposed terms and conditions for *connection* to the *network* including those of the kind set out in schedule 5.6 and:
 - (1) an explanation of the terms and conditions in the *connection agreement* that need to be finalised; and
 - (2) if relevant, further information necessary from the *Connection Applicant* to finalise the *connection agreement*;
- (l) a description of the process for lodging the *application to connect*, including:
 - (1) the options open to the *Connection Applicant* in submitting an *application to connect* in accordance with clause 5.3A.9;
 - (2) the further analysis to be undertaken by the *Distribution Network Service Provider* as part of the *Distribution Network Service Provider's* assessment of the *application to connect*;
 - (3) further information required from the *Connection Applicant* for the *Distribution Network Service Provider* to assess the *application to connect*; and
 - (4) an outline of proposed milestones (and their timeframes) for *connection* and access activities which may be modified from time to time by agreement of the parties, where such agreement must not be unreasonably withheld;
- (m) the application fee payable when submitting an *application to connect*;
- (n) whether the *Distribution Network Service Provider* agrees to the detailed response remaining valid for a specified period of time to

allow the *Connection Applicant* to lodge an *application to connect* within that time; and

- (o) any additional information relevant to the *application to connect*.

Schedule 3 Amendment to the National Electricity Rules

(Clause 5)

[1] Clause 6.7.2 Determination of terms and conditions of access for negotiated distribution services

In clause 6.7.2(b), omit "rules 5.2" wherever occurring and insert "rules 5.3, 5.3A" in each case.

[2] Clause 6.7.5 Preparation of and requirements for negotiation framework for negotiated distribution services

In clause 6.7.5(d), omit "rules 5.3" wherever occurring and insert "rules 5.3, 5.3A" in each case.

Schedule 4 Amendment to the National Electricity Rules

(Clause6)

[1] Chapter 10 Substituted Definitions

In Chapter 10, substitute the following definitions:

application to connect

An application made by a *Connection Applicant* in accordance with rule 5.3 or rule 5.3A for *connection* to a *network* and/or the provision of *network services* or modification of a *connection* to a *network* and/or the provision of *network services*.

Connection Applicant

A person who wants to establish or modify *connection* to a *transmission network* or *distribution network* and/or who wishes to receive *network services* and who makes a *connection* enquiry as described in clause 5.3.2 or clause 5.3A.5.

Note

In the context of Chapter 5A, the above definition has been displaced by a definition specifically applicable to that Chapter. See clause 5A.A.1.

Schedule 5 Savings and Transitional Amendments to the National Electricity Rules

(Clause7)

[1] Chapter 11 Savings and Transitional Rules

After rule 11.67 insert:

Part ZZB Connecting Embedded Generators

11.68 Rules consequential on the making of the National Electricity Amendment (Connecting embedded generators) Rule 2014

11.68.1 Definitions

For the purposes of this rule 11.68:

Amending Rule means the National Electricity Amendment (Connecting embedded generators) Rule 2014.

commencement date means the date on which the Amending Rule commences operations.

11.67.2 Continuation of enquiries lodged

- (a) Unless an *Embedded Generator* and *Distribution Network Service Provider* otherwise agree, any enquiry lodged by the *Connection Applicant* under clause 5.3.2 that has not been responded to or otherwise finalised under clause 5.3.3 on the commencement date, must be responded to or finalised under clause 5.3.3 unless both the *Connection Applicant* and the *Distribution Network Service Provider* agree otherwise.

[END OF RULE AS MADE]
