

20 February 2014

Mr John Pierce
Chairman
Australian Energy Market Commission
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By online submission

Dear Mr Pierce

Connecting Embedded Generators Draft Rule Determination (ERC0147)

AEMO appreciates the opportunity to comment on the draft National Electricity Amendment (Connecting Embedded Generators) Rule 2014 determination.

AEMO understands that the intent of the draft rule is to overcome barriers to efficient investment in embedded generation. While the original rule change proposal was intended to apply to smaller-scale generators embedded within industrial or commercial premises, AEMO understands that this draft rule applies to all distribution connected generators who register.

AEMO considers the draft rule will assist in overcoming a number of the barriers identified by the rule change proponents. However, AEMO considers that some amendments to the draft rule would aid the clarity and application of the final rule. AEMO's detailed comments are addressed below.

1. Application of Chapter 5 and Chapter 5A

AEMO considers that there is some ambiguity in relation to the process that will apply to embedded generators that do not meet the standing criteria for exemption but intend to apply to AEMO for exemption.

We understand that the AEMC intends that the Chapter 5 process should apply to these generators. AEMO proposes that Draft Rule clause 5.3.1(b) be amended to ensure that this category of generators is included. AEMO's proposed amendment is included in the attachment to this letter.

2. Technical Dispute

The draft rule clause 5.3A.11 has been added to provide guidance regarding the application of Rule 8.2 in relation to a technical dispute. AEMO considers that there may be value in including an educative statement in the AEMC's determination noting that Rule 8.2 applies to all connection applications.

3. Amendment to the Wording of the Draft Rule

AEMO proposes some amendments to the wording of the draft rule to add clarity in applying the draft rule. A table of the proposed amendments is included as an attachment to this submission, together with explanatory notes for each suggested amendment.

If you have any questions regarding this submission please do not hesitate to contact Cath Chalmers on (02) 9239 9146.

Yours sincerely



Mike Cleary

Chief Operating Officer

Clause number	Draft rule	AEMO proposed change	Reason
5.3.1(b)	A <i>Registered Participant</i> or person intending to become a <i>Registered Participant</i> who wishes to establish a <i>connection</i> to a <i>network</i> must follow the procedures in this rule 5.3.	A <i>Registered Participant</i> , or person intending to become a <i>Registered Participant</i> , <u>or person intending to apply for an exemption from the requirement to register</u> who wishes to establish a <i>connection</i> to a <i>network</i> must follow the procedures in this rule 5.3.	
5.3.1A	Application of rule to connection to embedded generating units	Application of rule to connection to of embedded generating units <u>systems</u>	Grammatical correction. The term <i>generating system</i> is more universally applicable than <i>generating unit</i> . Many embedded generation connections include the connection of multiple <i>generating units</i> and <i>generating system</i> includes a single <i>generating unit</i> .
5.3.1A(a)	If a <i>Connection Applicant</i> wishes to connect an <i>embedded generating unit</i> , then unless otherwise provided:	If a <i>Connection Applicant</i> wishes to connect an <i>embedded generating</i> unit <u>system</u> , then unless otherwise provided:	The term <i>generating system</i> is more universally applicable than <i>generating unit</i> .
5.3.4A(c)	(c) A <i>Network Service Provider</i> must following the receipt of a proposed <i>negotiated access standard</i> under clause 5.3.4(e), paragraph (h)(3) or clause 5.3A.9(f) consult with <i>AEMO</i> as soon as practicable in relation to <i>AEMO</i> advisory matters for that proposed standard.	(c) A <i>Network Service Provider</i> must following the receipt of a proposed <i>negotiated access standard</i> under clause 5.3.4(e), <u>clause 5.3A.9(f) or</u> paragraph (h)(3) or clause 5.3A.9(f) consult with <i>AEMO</i> as soon as practicable in relation to <i>AEMO</i> advisory matters for that proposed standard.	The reference order reflects the process where a <i>Network Service Provider</i> will initially receive a proposed negotiated access standard under either 5.3.4(e) or 5.3A.9(f) and if any subsequent proposal is then necessary it

5.3.4A(d)	AEMO must within 20 <i>business days</i> following the submission of a proposed <i>negotiated access standard</i> under clause 5.3.4(e), paragraph (h)(3) or clause 5.3A.9(f) respond to the <i>Network Service Provider</i> in writing in respect of any AEMO advisory matters.	AEMO must within 20 <i>business days</i> following the submission of a proposed <i>negotiated access standard</i> under clause 5.3.4(e), clause 5.3A.9(f) or paragraph (h)(3) or clause 5.3A.9(f) respond to the <i>Network Service Provider</i> in writing in respect of any AEMO advisory matters.	would be made under paragraph (h)(3).
5.3.4A(e)	A <i>Network Service Provider</i> must within 30 <i>business days</i> following the receipt of a proposed <i>negotiated access standard</i> in accordance with clause 5.3.4(e), paragraph (h)(3) or clause 5.3A.9(f), accept or reject a proposed <i>negotiated access standard</i> .	A <i>Network Service Provider</i> must within 30 <i>business days</i> following the receipt of a proposed <i>negotiated access standard</i> in accordance with clause 5.3.4(e), clause 5.3A.9(f) or paragraph (h)(3) or clause 5.3A.9(f) , accept or reject a proposed <i>negotiated access standard</i> .	
5.3.5(e)	If the <i>application to connect</i> involves the <i>connection of generating units</i> having a <i>nameplate rating</i> of 10 MW or greater to a <i>distribution network</i> , the <i>Distribution Network Service Provider</i> must consult the relevant <i>Transmission Network Service Provider</i> regarding the impact of the <i>connection</i> contemplated by the <i>application to connect</i> on fault levels, line reclosure protocols, and stability aspects.	If the <i>application to connect</i> involves the <i>connection of generating units</i> having a <i>nameplate rating</i> of 10 MW or greater to a <i>distribution network</i>, the <i>Distribution Network Service Provider</i> must consult the relevant <i>Transmission Network Service Provider</i> regarding the impact of the <i>connection</i> contemplated by the <i>application to connect</i> on fault levels, line reclosure protocols, and stability aspects.	This clause has been superseded by 5.3A.10(c).
5.3.5(f)	The <i>Transmission Network Service Provider</i> consulted under paragraph (e) must determine the reasonable costs of addressing those matters for inclusion in the offer to <i>connect</i> and the <i>Distribution Network Service Provider</i> must make it a condition of the offer to <i>connect</i> that the <i>Connection Applicant</i> pay these costs.	The <i>Transmission Network Service Provider</i> consulted under paragraph (e) must determine the reasonable costs of addressing those matters for inclusion in the offer to <i>connect</i> and the <i>Distribution Network Service Provider</i> must make it a condition of the offer to <i>connect</i> that the <i>Connection Applicant</i> pay these costs.	This clause has been superseded by 5.3A.10(d).

5.3A.1(a)	Where a <i>Connection Applicant</i> wishes to <i>connect</i> an <i>embedded generating unit</i> , this rule 5.3A applies.	Where a <i>Connection Applicant</i> wishes to <i>connect</i> an <i>embedded generating ###system</i> , this rule 5.3A applies.	The term <i>generating system</i> is more universally applicable than <i>generating unit</i> .
5.3A.3(a)(1)	an enquiry form for <i>connection</i> of an <i>embedded generating unit</i> ;	an enquiry form for <i>connection</i> of an <i>embedded generating ###system</i> ;	
5.3A.3(b)(1)	a description of the process for lodging an <i>application to connect</i> for an <i>embedded generating unit</i> , including:	a description of the process for lodging an <i>application to connect</i> for an <i>embedded generating ###system</i> , including:	
5.3A.3(b)(1)(v)	the factors taken into account by the <i>Distribution Network Service Provider</i> , at each stage of the <i>connection</i> enquiry and application, when assessing an <i>application to connect</i> for an <i>embedded generating unit</i> ;	the factors taken into account by the <i>Distribution Network Service Provider</i> , at each stage of the <i>connection</i> enquiry and application, when assessing an <i>application to connect</i> for an <i>embedded generating ###system</i> ;	
5.3A.3(2)	single line diagrams of the <i>Distribution Network Service Provider's</i> preferred <i>connection</i> arrangements, and a range of other possible <i>connection</i> arrangements for integration of an <i>embedded generating unit</i> , showing the <i>connection point</i> , the point of common coupling, the <i>embedded generating unit(s)</i> , <i>load(s)</i> , <i>meter(s)</i> , circuit breaker(s) and isolator(s);	single line diagrams of the <i>Distribution Network Service Provider's</i> preferred <i>connection</i> arrangements, and a range of other possible <i>connection</i> arrangements for integration of an <i>embedded generating ###system</i> , showing the <i>connection point</i> , the point of common coupling, the <i>embedded generating unit(s)</i> , <i>load(s)</i> , <i>meter(s)</i> , circuit breaker(s) and isolator(s);	
5.3A.3(3)	a sample schematic diagram of the <i>protection system</i> and <i>control system</i> relevant to the <i>connection</i> of an <i>embedded generating unit</i> to the <i>distribution network</i> , showing the <i>protection system</i> and <i>control system</i> , including all relevant current circuits, relay potential circuits, alarm and monitoring circuits, back-up systems and	a sample schematic diagram of the <i>protection system</i> and <i>control system</i> relevant to the <i>connection</i> of an <i>embedded generating ###system</i> to the <i>distribution network</i> , showing the <i>protection system</i> and <i>control system</i> , including all relevant current circuits, relay potential circuits, alarm and monitoring circuits, back-up	

	parameters of protection and control system elements;	systems and parameters of protection and control system elements;	
5.3A.3(4)	worked examples of <i>connection service</i> charges, enquiry and application fees for the <i>connection of embedded generating units</i> , based on the preferred and possible <i>connection</i> arrangements set out in paragraph (b)(2);	worked examples of <i>connection service</i> charges, enquiry and application fees for the <i>connection of embedded generating unitssystems</i> , based on the preferred and possible <i>connection</i> arrangements set out in paragraph (b)(2);	
5.3A.3(5)	details of any <i>minimum access standards</i> or <i>plant standards</i> the <i>Distribution Network Service Provider</i> considers are applicable to <i>embedded generating units</i> and <i>generating plant</i> ;	details of any <i>minimum access standards</i> or <i>plant standards</i> the <i>Distribution Network Service Provider</i> considers are applicable to <i>embedded generating units and generating plantsystems</i> ;	
5.3A.3(6)(ix)	circumstances in which aggregation may be required to facilitate integration of an <i>embedded generating unit</i> into the <i>network</i> ; and	circumstances in which aggregation may be required to facilitate integration of an <i>embedded generating unitsystem</i> into the <i>network</i> ; and	
5.3A.10(c)	(c) If the <i>application to connect</i> involves the connection of <i>embedded generating units</i> having a nameplate rating of 10 MW or greater, the <i>Distribution Network Service Provider</i> must consult the relevant <i>Transmission Network Service Provider</i> regarding the impact of the <i>connection</i> contemplated by the <i>application to connect</i> on fault levels, line reclosure protocols, and stability aspects.	(c) If the <i>application to connect</i> involves the connection of <i>an embedded generating unitssystem</i> having a nameplate rating of 10 MW or greater, the <i>Distribution Network Service Provider</i> must consult the relevant <i>Transmission Network Service Provider</i> regarding the impact of the <i>connection</i> contemplated by the <i>application to connect</i> on fault levels, line reclosure protocols, and stability aspects.	
5.4.5(b)	(b) In relation to <i>embedded generating units</i> connected to its <i>network</i> , a <i>Distribution Network Service Provider</i> must establish and maintain a register of the <i>plant</i> , including but not limited to:	(b) In relation to <i>embedded generating unitssystems</i> connected to its <i>network</i> , a <i>Distribution Network Service Provider</i> must establish and maintain a register of the <i>plant</i> , including but not limited to:	The term <i>generating system</i> is more universally applicable than <i>generating unit</i> .

5.4.5(d)	The <i>Distribution Network Service Provider</i> must include in the register the details contained in paragraph (b) for all <i>embedded generating units</i> connected to its <i>network</i> within the 5 year period preceding the establishment of the register and update the register by the DAPR date each year thereafter with details of all <i>embedded generating units connected</i> to its <i>network</i> in the 5 year period preceding the review date.	The <i>Distribution Network Service Provider</i> must include in the register the details contained in paragraph (b) for all <i>embedded generating units-systems</i> connected to its <i>network</i> within the 5 year period preceding the establishment of the register and update the register by the DAPR date each year thereafter with details of all <i>embedded generating units-systems connected</i> to its <i>network</i> in the 5 year period preceding the review date.	
Schedule 5.4A (a)(2)	other protection and control requirements applicable to <i>embedded generating units</i> and associated <i>plant</i> ;	other protection and control requirements applicable to <i>embedded generating units-systems</i> and associated <i>plant</i> ;	
Schedule 5.8 (1)(1)(ii)	key issues arising from <i>applications to connect embedded generating units</i> received in the past year;	key issues arising from <i>applications to connect embedded generating units-systems</i> received in the past year;	