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Sent: Wednesday, 3 May 2023 2:19 PM
To: DEM:Energy Market Reform <DEMEnergyMarketReform@sa.gov.au>
Cc: [Redacted]

Subject: RE: Amendments to the Electricity (General) Regulations 2012 and Gas Regulations 2012

OFFICIAL

Hi team

Thank you for your email about proposed amendments to the Electricity and Gas Regulations.

Following phone calls with Brian Massey and Ian Furness, this note is to bring to your attention draft changes to the Electricity Distribution Code (EDC/13) which may be relevant either to your current review, or to your future program of revisions to the Electricity Regulations. It is not a formal submission.

In January 2023, the Commission made a [draft decision](#) to remove Chapter 3 of the Electricity Distribution Code (EDC/13). Chapter 3 makes provisions for the connection of embedded generators to the distribution network. The Commission’s draft decision noted that most clauses in Chapter 3 are addressed by other regulatory instruments and may be removed on that basis (see section 5.1 and Appendix 2).

The Commission made the further draft decision to remove three clauses that are not clearly or comprehensively addressed by other regulatory instruments, and recommend to the Technical Regulator that it considers whether these matters should be provided for in the broader State framework before the new Code commences on 1 July 2025. Those three clauses are 3.10.1(b), 3.13 and 3.17. Copied below is an extract from the draft decision with detail about these clauses and their review.

We have consulted with the OTR during our Electricity Distribution Code review, and on the draft decision.

The Commission will make its final decision soon - in June 2023. Following that, we will formally write to the Technical Regulator on this matter.

Look forward to discussing further.



Item number	Clause (EDC 13.1 numbering shown)	Discussion	Draft decision
11	3.10 Capacity 3.10.1 The capacity of embedded generator s plant shall not exceed the capacity of the distribution network in terms of: (a) its capacity to accept export energy	Clause 3.10.1 (a) is duplicated by the provisions for imposing export limits and defining the technical parameters that determine network capacity in SIR 6.2 (TIR) and TS129 (4.1.5 and 4.2.1), TS132 and TS133 (4.3.1).	Clause 3.10.1 (a) will be removed.

12	(b) its capacity to provide emergency energy in the event of a generator trip, and	<p>This clause is partially duplicated by NER S5.2.5.12, SIR 6.2.5 (TIR), TS132 and 133 (4.12.1.1), and TS133 (4.16.4).</p> <p>The Commission has reviewed the intent of clause 3.10.1 (b), and considers that it applies to both a trip of the embedded generator to which the clause applies, and to the trip of another embedded generator operating within the distribution network.</p> <p>The meaning of the phrase 'provide emergency energy' may be better expressed as 'supply energy'.</p> <p>In the current Code 'emergency' means 'an emergency due to the actual or imminent occurrence of an event which in any way endangers or threatens to endanger the safety or health of any person, or the maintenance of power system security, in the state of South Australia or which destroys or damages, or threatens to destroy or damage, any property in the state of South Australia.'</p> <p>The Commission considers that the meaning of 'emergency energy' in this clause is narrower. The clause is referring to the ability of the distribution network to continue to supply energy in the event that an embedded generator fails.</p>	Clause 3.10.1 (b) will be removed, the Commission will recommend to the Technical Regulator that it considers whether these matters should be addressed elsewhere in the State regulatory framework.
19	<p>3.13 Delivery performance requirements of Embedded Generation Units</p> <p>3.13.1 An embedded generator's plant shall be able to:</p> <p>a) respond safely to network disturbances</p> <p>b) shut down safely without external electricity supply</p> <p>c) restart following loss and restoration of supply, and</p> <p>d) operate in a stable manner on the distribution network during system disturbances.</p>	<p>Clause 3.13.1 is not duplicated by other regulatory instruments. Note that d) is partially duplicated in TS132/33 (at 4.3.1). Further, AS4777.2:2020 (4.7) and TS132/33 (4.9.2) are relevant to c), but the Code requirement is not specifically covered.</p> <p>No other requirements explicitly address the impact of embedded generator performance on the distribution network, only the need for each embedded generator to respond locally.</p> <p>AEMO is currently working on better defining DER impacts on operational stability¹²⁶ which may be relevant to consideration of how this matter is addressed in the State framework.</p>	Clause 3.13.1 will be removed, the Commission will recommend to the Technical Regulator that it considers whether these matters should be addressed elsewhere in the State regulatory framework.
25	<p>3.17 Interference</p> <p>3.17.1 If the distributor notifies the embedded generator that its embedded generating unit is causing interference above the limits set out in AS/NZS 2344, AS 2279, AS/NZS 61000 3.2, 3.3 or 3.5, the embedded generator must reduce the level of interference to below these limits within 90 days.</p>	<p>Clause 3.17.1 is partially duplicated by other regulatory instruments, including SIR 5.2.4 (TIR).</p> <p>Managing interference caused by generators outside the limits set in relevant standards is a material matter.</p> <p>This requirement may refer to 'limits set out in SA Power Networks' technical standards and in the Australian Standards they refer to', instead of any specific standards.</p> <p>Further, the 90-day requirement may be replaced with the requirement for embedded generators to resolve interference within timeframes set by SA Power Networks on a case-by-case basis.</p> <p>References to Code clauses 3.2, 3.3 and 3.5 are now redundant, because the proposal is to remove those clauses through this draft decision.</p>	Clause 3.17 will be removed, the Commission will recommend to the Technical Regulator that it considers whether these matters should be addressed elsewhere in the State regulatory framework.



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