Explanatory note: Connection charge guideline review

Final decision

April 2023

AUSTRALIAN ENERGY REGULATOR

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601
Tel: 1300 585 165

AER reference: AER22005121

Contents

1 Purpose of this paper 4
Scope of this review 5
Background 5
Review to date 6
Summary of our final decision 6
2 Key issues and questions from consultation 8
2.1 Principles for assessment 9
2.2 Publication of assessment framework 11
2.3 Dynamic response systems 12
2.4 Reasons for static zero limits 13
2.5 Network augmentations that do not meet economic test 14
2.6 Reviewing static zero limits 15
2.7 Other issues 16
3 Glossary 17
Attachment A 18
Relevant clauses of the NER 18

1 Purpose of this paper

As required by changes made to the National Electricity Rules (NER or Rules) in August 2021, the Australian Energy Regulator (we) reviewed our Connection charge guideline to describe the circumstances (or how to determine the circumstances) under which a distribution network service provider (DNSP) may impose a static zero export limit (static zero limit) to a micro embedded generator seeking to connect to the network.

Small systems, like rooftop solar systems, and storage batteries installed behind the electricity meter at residences are classified under the Rules as micro embedded generators.

A micro embedded generator includes consumer energy resources and distributed energy resources. Consumer energy resources are energy resources owned or leased by residential and small-business consumers (or groups of consumers) that:

- generate or store electricity, or
- can alter demand in response to external signals.

Consumer energy resources include consumer loads that are flexible and efficiently optimised either through automation or direct behavioural response.

This review applied to all forms of new micro embedded generator connections under the Rules that could inject energy into the grid. The most common form is rooftop solar. For simplicity throughout the consultation process, we referred to micro embedded generators as rooftop solar, recognising that when we refer to rooftop solar, we are referring to all forms of micro embedded generators under the Rules.

Following consultation with stakeholders, we have finalised our proposed changes to the Connection charge guideline by adding new chapter 7A to the guideline. This new chapter sets the conditions under which a DNSP may impose a static zero limit on new or altered rooftop solar.

The purpose of the Connection charge guideline is to guide DNSPs to prepare their connection policies for each regulatory control period for our approval as a part of the 5-yearly distribution determination process.[1]

Changes to the Connection charge guideline do not immediately affect customers. The changes only affect customers after we approve DNSPs' new connection policies, which will take effect after the next round of distribution determinations.

This means the new arrangements will officially commence for DNSPs from:

- 1 July 2024 for the Australian Capital Territory, New South Wales, Northern Territory and Tasmania
- 1 July 2025 for Queensland and South Australia
- 1 July 2026 for Victoria.

---

1 NER Clause 6.7A.1(b)

A micro embedded generator is a generating unit contemplated by Australian Standard AS 4777 (grid connection of energy systems via inverters). They are predominantly solar PV systems on residential properties (rooftop solar) but may also include larger units on commercial buildings up to 200 kW in size (the size limit permitted under AS 4777) and battery systems.

A static zero limit means that a customer is prevented from accessing the network to export electricity at any time.

As a part of our review process, on 16 August 2022, we published an issues paper for stakeholder feedback.[2] On 11 October 2022, we released the draft *Connection charge guidelines for electricity customers (Under chapter 5A of the National Electricity Rules Draft version 3.0 for consultation)*[3] (draft guideline) and invited DNSPs, energy consumers and other interested parties to make submissions.

This explanatory note sets out our consideration of stakeholder feedback to the draft guidelines and explains our final positions.

Scope of this review

This review applies to all forms of new micro embedded generators that could inject energy into the grid including rooftop solar, which is the most common form of such generators.

Pre-existing rooftop solar systems are covered by original connection contracts between customers and their DNSPs. As a result, they cannot have a static zero limit applied to them unless that is included in the original connection contract.

Modifications to pre-existing systems, such as adding more solar panels, will be treated as a connection alteration and are covered by this review. An example of connection alteration includes increasing the export capacity of the inverter by adding more solar panels. However, like-for-like replacement of pre-existing inverters and solar panels due to equipment failure is typically not considered to be a connection alteration.

Background

Previously, the Rules did not contain specific conditions around the treatment of exports of electricity from rooftop solar. In August 2021 the Australian Energy Market Commission (AEMC) made a change to the Rules to recognise two-way flows of electricity.[4] The Rule change introduced a package of measures designed to integrate rooftop solar systems, battery storage systems and electric vehicles more efficiently connect to the grid and move electricity distribution networks towards a smarter, enhanced system that can better manage the supply and demand dynamics of a distributed energy world.

---

2 https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/connection-charge-guideline-review-2022/initiation

3 https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/connection-charge-guideline-review-2022/draft-decision

4 AEMC, *Access, pricing and incentive arrangements for distributed energy resources*, Rule determination, 12 August 2021.

Prior to these changes, the Rules did not prevent DNSPs from imposing static zero limits, even in situations where there was sufficient capacity available. However, under the changes to the Rules, DNSPs will not be able to impose static zero limits, unless:

- the customer makes a request, or
- an exception listed in the Connection charge guideline applies.

While the focus of the Rule change was to support more rooftop solar into the grid and reduce solar wastage, the AEMC did not consider it appropriate to introduce a complete prohibition on DNSPs imposing static zero limits because there may be limited circumstances (for example, in small pockets on the network) where it is efficient or necessary for DNSPs to apply them.

The new Rules required us to specify in the Connection charge guideline the circumstances (or how to determine the circumstances) under which a DNSP may impose a static zero limit to a micro embedded generator seeking to connect to the network. Attachment A sets out the relevant Rules requirements for the review.

Small customers might be able to connect rooftop solar at such locations, but a static zero limit means that a customer is prevented from accessing the network to export electricity at any time.[5]

Review to date

On 16 August 2022, we published an issues paper for stakeholder feedback. On 11 October 2022, we released the draft guideline with an explanatory note and invited energy consumers and other interested parties to make submissions on the draft guideline. The submissions, along with feedback from our stakeholder forums, has been included in the analysis in this explanatory note.

Accompanying this explanatory note is the *Connection charge guidelines for electricity customers* (the final guideline), which contains the implementation of our final positions to the key issues raised in consultation following the release of the draft guideline.

Summary of our final decision

The conditions under which a DNSP may impose a static zero limit on new rooftop solar remain substantially unchanged from the draft guideline for consultation. However, we have added an additional condition about how a DNSP should communicate with those rooftop solar connection applicants when a static zero limit is imposed. We have also added customer protection provisions for those cases in which a static zero limit is imposed.

Based on the content of the final guideline, we expect that the imposition of a static zero limit will be a rare occurrence.

In summary, these are the key positions reflected in the final connection charge guideline.

- The conditions to be met before a DNSP is allowed to impose a static zero limit are:

---

5 AEMC, *Access, pricing and incentive arrangements for distributed energy resources*, Rule determination, 12 August 2021, p.i.

    - the export from rooftop solar will result in the DNSP not meeting a regulatory obligation or maintaining the network within its technical limits (the technical consideration), and
    - the cost of augmenting the DNSP's network assets in order to allow a reasonable export capacity level by the micro embedded generator connection applicant outweighs the benefits arising from providing the additional export capacity to this micro embedded generator connection, taking into consideration the expected future new micro embedded generation outputs that will be able to export to the grid arising from the augmentation (the economic consideration). Notwithstanding this guidance, if the cost to augment the network assets is only marginally higher than the benefits, the DNSP must not impose a static zero limit.
    - despite meeting the technical and economic tests, a DNSP cannot impose a static zero limit where a dynamic response system suitable to the connection applicant's location is reasonably available.
- Each DNSP may determine its own standard assessment policy for the application of a static zero limit according to a set of standard criteria and publish this policy on its website.
- Prior to imposing a static zero limit on a connection applicant, the DNSP must:
    - explain, to the connection applicant, the technical and economic considerations that led to the static zero limit being imposed; and
    - inform the connection applicant of the option of installing a suitable dynamic response system, in order to avoid a static zero limit being imposed; and
    - inform the connection applicant about how to access an independent technical review of the DNSP's reasons for imposing the static zero limit; and
    - inform the connection applicant about whether there are alternative dispute resolution channels available to help negotiate a suitable export limit other than a static zero limit.
- Regular reviews of static zero limits are required to be offered.
- DNSPs should communicate with their stakeholders to explain the reasons why static zero limits could be imposed to new rooftop solar installation. Communications should not be limited to DNSPs placing material on the websites. Communication should include sharing the reasons behind the imposition of static zero limits with local councils, relevant businesses (such as retailers and solar installers) and community groups in a way that enables a clear understanding of why static zero limits have been imposed on micro embedded generators.

2 Key issues and questions from consultation

This section outlines our consideration of the key issues in developing the final amendments to our Connection charge guideline. In developing these amendments, we have considered:

- **the National Electricity Objective (NEO)** – *to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interest of consumers of electricity with respect to:*

  (a) price, quality, safety, reliability and security of supply of electricity

  (b) the reliability, safety and security of the national electricity system.

- **NER clause 5A.E.3(b)(3)**, which provides that *the purpose of the Connection charge guidelines is to ensure that connection charges limit cross-subsidisation of connection costs between different classes (or subclasses) of retail customer*.

Submissions to the draft guideline broadly supported the general policy of not prohibiting static zero limits and supported the 2 considerations (the technical consideration and the economic consideration) that must be satisfied before imposing a limit. These 2 considerations are implemented in clause 7A.1.1 of the final guideline.

Ausgrid stated that the draft guideline 'overall struck a good balance in facilitating a sensible pathway for networks to implement static zero export limits in a transparent, consistent way utilising the proposed principles'.[6]

TasNetworks indicated that 'even if it is seldom used, it is important, therefore, that the ability to set static zero export limits for customers with embedded generation is amongst the tools available to DNSPs to manage their networks'.[7]

Energy Consumers Australia (the ECA) agreed with our statement that DNSPs should only impose static zero limits in rare cases. However, the ECA recommended that in respect of the economic consideration at clause 7A.1.1(b), the guidelines 'be amended to say that if the analysis shows that the cost of network augmentation is only marginally higher (for example by 10%) than the benefits, networks should still augment. This amendment would account for the costs of curtailment, such as consumer trust, that are difficult to measure. This amendment also accounts for the risk that as electrification increases in the future, network augmentation which consumers pay for to remove a static limit might become necessary anyway'.[8]

We have adopted this recommendation in the final guideline. Notwithstanding the guidance in subclause in 7A.1.1 (b), if the cost to augment the network assets is only marginally higher than the benefits, the DNSP must not impose a static zero limit.

---

[6] Ausgrid, *Ausgrid submission re AER's draft connection charge guidelines Version 3.0 for consultation*, 21 November 2022.

[7] TasNetworks, *RE Connection charge guideline review*, 21 November 2022.

[8] Energy Consumers Australia, *Energy Consumers Australia submission to the Australia Energy Regulator's Draft Decision in the Connection Charge Guideline Review 2022*, 21 November 2022.

The ECA sought clarification about how frequently and under what conditions we expected static zero limits to occur.[9] The ECA requested that we provide some case studies or examples of these circumstances.

We expect that static zero limits will only be imposed in very limited situations, such as:

- if a quantity (even if only small) of exports from a new rooftop solar system is likely to cause technical and safety issues on the network
- it is not economic to upgrade the local network to allow the export
- there are no other means to manage the exports (such as a suitable dynamic response system).

Generally, we do not see static zero limits as an appropriate measure in future for networks given the deployment of batteries and electric vehicles (EVs) and the ability to manage consumer energy resources more flexibly, which some networks are already doing.

With a general acceptance of the technical and economic tests, the majority of issues raised in the submissions centred around:

- the 'principles' for assessing a static zero limit
- the publication of DNSPs' assessment frameworks and wording related to dynamic response systems
- the scope of the reasons to be provided by DNSPs when applying the limit
- treatment of network augmentations that did not meet the economic test
- reviews of the static zero limits and a small number of other issues.

All submissions are available on our website. Our responses to the issues raised in the submissions are discussed in the following paragraphs.

2.1 Principles for assessment

In the explanatory note to the draft guideline, we considered that it was reasonable for each DNSP to determine its own standard assessment approach and that it was reasonable for DNSPs to be required to include their assessment processes on their websites. We also considered that requiring DNSPs to include the assessment process in their connection policies would provide a level of oversight, because DNSPs' connection policies are reviewed and approved by the AER.

In the draft guideline, the features we considered should be addressed in the standard assessment included:

- The identification of network limitations caused by constraints such as (but not limited to): thermal issues, voltage issues and protection systems. This is to identify the elements that prohibit the micro embedded generator from exporting into the existing network.

[9] Energy Consumers Australia, *Energy Consumers Australia submission to the Australia Energy Regulator's Draft Decision in the Connection Charge Guideline Review 2022*, 21 November 2022

- Network expenditure has not already been undertaken to relieve these network constraints. This is to make sure that the network constraints would not be alleviated in the near future.
- The DNSP must undertake a cost-benefit analysis to identify that a static zero limit is the least cost option for addressing the above network constraints. This is to make sure that the DNSP has assessed all the avenues to deliver the best outcome to the prospective customer and existing network users.
- Provided the connection applicant is not utilising a suitable dynamic response system, the DNSP can apply a static zero limit if it is the least cost option. This requirement is to test that the final outcome achieves the NEO.

We implemented this position on the principles of assessment in the draft guidelines at proposed clause 7A.1.3.

Stakeholder feedback and AER position

Several submissions detailed concern for what was perceived to be a requirement on DNSPs to undertake individualised cost-benefit analysis before applying a static zero limit to a specific customer. Such a requirement was considered by DNSPs to be costly, onerous and time consuming.

However, the ECA stated that the 'Draft Determination [draft guideline] states that the occurrence of static zero limits should only occur in a limited set of circumstances. The Determination [draft guideline] also states that a standard assessment approach is a sufficient justification for this outcome, and any bespoke assessment would be too costly in these limited circumstances. These two statements are potentially in conflict: if zero export limits are infrequent and rare, then a bespoke analysis itself would rarely be required. Therefore, whatever cost is required for a bespoke analysis, would rarely be incurred'.[10] As a result, the ECA considered that these limited or unique circumstances should justify a more detailed analysis of the reasons for applying a static zero limit.

While the actual imposition of a static zero limit will be rare, we recognise that the cost incurred by DNSPs to undertake individual bespoke assessments could be costly and inefficient. This cost will eventually be borne by all customers. We propose that a DNSP - specific standard assessment approach (as opposed to a full power quality survey) would be a more efficient way to manage the cost more effectively – in particular, where DNSPs do not have full visibility of all customers' information through smart meters.

In earlier consultation, DNSPs supported the adoption of a DNSP-specific standard assessment approach (as opposed to a full power quality survey). In light of that, we considered that a DNSP-specific standard approach was appropriate when it was efficient and prudent to do so and did not require DNSPs to undertake an individual cost assessment under the standard assessment framework. That is, for example, in the limited circumstance where a static zero limit is applied to customers in a small pocket on the network in order to maintain the network within its technical limits – then a cost-benefit analysis for every individual customer located within that pocket would not be required under the standard

[10] Energy Consumers Australia, *Energy Consumers Australia submission to the Australia Energy Regulator's Draft Decision in the Connection Charge Guideline Review 2022*, 21 November 2022.

assessment (only a cost-benefit analysis on the part of the network to which the static zero limit applies).

In response to our proposed draft condition 7A.1.3 (including the wording 'network expenditure that …'), the ENA sought to remove any potential ambiguity by highlighting that the AER's (assumed) intent may be achieved by the removal of 'that' from the sentence.[11] We agree and therefore have removed the word 'that' from the sentence in the final guideline to resolve any ambiguity.

Following consultation, we agreed that naming the 'standard assessment policy' was preferable to the draft guideline reference of 'standard assessment framework' in that this document was more a policy than a framework.

Also, following consultation we accept that the label of 'performance principles' in 7A.1.3 of the draft guideline mischaracterised what were criteria (and a process) that a standard assessment policy must contain. The final guideline reflects these changes.

2.2 Publication of assessment framework

During consultation on the draft guideline we proposed that it would be reasonable for DNSPs to be required to include their assessment processes on their websites and connection policies. We considered that requiring DNSPs to include the assessment process in their connection policies would provide a level of oversight, because we review and approve DNSPs' connections policies.

Stakeholder feedback and AER position

There was broad support for publishing assessment policies on websites.

However, several submissions did not support assessment frameworks being included in connection policies given they are developed during the regulatory control period. Locking in the assessment approach for 5 years in a connection policy was said not to reflect the dynamic nature of rooftop solar and technology changes (and the process to change connection policies was also considered lengthy by some).

We acknowledge the need to update assessment frameworks in a timely manner given the dynamic and rapidly changing nature of rooftop solar. We also need to support consumers in the changing environment and maintain regulatory oversight of DNSP decisions to impose static zero limits. Along with the Connection charge guidelines, DNSPs' connection policies will facilitate our oversight of future decisions by DNSPs to impose static zero limits.

While the reference in Clause 7.A.1.3 to displaying the framework in the connection policy has been removed, DNSPs' connection policies must comply with the Connection charge guideline and the guideline now describes the circumstances in which a DNSP may offer a static zero limit. We expect DNSP connection policies to address the requirements of the updated guideline.

[11] Energy Networks Australia, *AER Connection Charge Guideline Review – Draft Guideline and Explanatory Statement*, 21 November 2022.

Following consultation with stakeholders we replaced the word 'framework' with 'policy' in clause 7.A.1.3 to better reflect the nature of the document.

With the changes to 7.A.1.3, paragraph 7A.1.9 from the draft guideline becomes a duplication and has been deleted from the final guideline.

The ECA stated that to 'build the trust and social licence required to harness the benefits of consumer energy resources (CER)', information from DNSPs' analysis must be 'communicated to consumers in an accessible and understandable manner. This communication needs to be extended further than DNSP websites or consumer's connection agreements into the broader community a network operates in'.[12] We agree with the ECA's suggestion because just publishing information on a DNSP's website may not be the most effective way to communicate with relevant stakeholders. Hence, we added a requirement in the final guideline at 7.1.15 that DNSPs provide communications to its stakeholders explaining the reasons for static zero limits existing in the network. These communications should not be limited to placing material on the DNSPs' websites. The communications should involve sharing the reasons behind the imposition of static zero limits with local councils, relevant businesses (such as retailers and solar installers) and community groups in a way that enables a clear understanding of why static zero limits have been imposed on micro embedded generators.

2.3 Dynamic response systems

The benefits of implementing a 'dynamic response system' were detailed in the explanatory note to the draft guideline and we considered it appropriate to include clause 7A.1.4, limiting the imposition of a zero static zero limit where a micro embedded generator had a suitable dynamic response system.

However, in some instances the required technology and infrastructure are not yet fully developed in some parts of the network and/or customers' equipment. In light of concerns from stakeholders, we made it clear in the draft guideline that the clause would not apply where a DNSP has not yet identified a suitable dynamic response system in a particular location.

Stakeholder feedback and AER position

Several submissions noted that dynamic response systems (or flexible export ready systems) would facilitate more exports from rooftop solar in the future with a fairer allocation of network capacity between customers.

A number of submissions again sought more clarity on the wording in clauses to reflect that a DNSP was not prevented from applying a static zero limit to a customer if a flexible export ready system is not available for use or activated at a particular location. Ausgrid specifically suggested amendment to draft clause 7A1.5(b) so that 'it is clearer that it does not operate if

[12] Energy Consumers Australia, *Energy Consumers Australia submission to the Australia Energy Regulator's Draft Decision in the Connection Charge Guideline Review 2022*, 21 November 2022.

clause 7A1.4 has not been enlivened by a network implementing these systems, either for the whole or part of the network'.[13]

Following additional consultation with stakeholders, clause 7.A.1.4 has been amended to further clarify our position that the clause does not apply where a DNSP has not identified a suitable dynamic response system in a connection applicant's location.

2.4 Reasons for static zero limits

Early consultation highlighted support for DNSPs providing customers with reasons why a static zero limit is imposed. This position was implemented in draft clause 7A.1.5.

Stakeholder feedback and AER position

Draft clause 7A.1.5 required DNSPs to provide customers with the reasons regarding the technical and economic considerations that led to the static zero limit. Several submissions were supportive of customers having access to information that provides an overview of the assessment approach used by the DNSP and information on how to access dispute resolution processes.

However, CitiPower, Powercor and United Energy (CPU) were concerned that the explanatory statement suggested that draft clause 7A.1.5 could include such information as the methodology, data and calculations used in the assessment.[14] Given its use of data from other customers, CPU did not consider it appropriate to provide such data. We note that the examples provided in the explanatory statement to the draft guideline were for guidance only, and only for use where appropriate. We consider it remains appropriate in most cases to provide customers with information about the methodology, data and calculations used.

The ECA's submission stated that customers are entitled to access an independent technical expert to review the DNSP's analysis and the connection agreement. The ECA strongly supported this requirement and noted that this requirement was not included in the additions proposed in the draft guideline.[15]

Customers are entitled to adequate information from a DNSP when a static zero limit is proposed. To support this customer entitlement, the final guideline requires the DNSP to inform the connection applicant on how to access an independent technical review of the DNSP's reasons for imposing the static zero limit.

The ECA also referred to its submission to the issues paper, where it proposed information regarding areas or communities with restricted solar exports be more accessible by sharing through local councils or community groups. In its submission, the ECA further stated that 'Networks should also share this information in their Distribution Annual Planning Reports where they report on their strategy and planning each year' and that 'networks also provide access to clear, understandable information on export services to solar retailers and

---

[13] Ausgrid, *Ausgrid submission re AER's draft connection charge guidelines Version 3.0 for consultation*, 21 November 2022.

[14] CitiPower, Powercor and United Energy, *Connection charge guideline review – static zero export limits – draft guidelines*, 21 November 2022.

[15] Energy Consumers Australia, *Energy Consumers Australia submission to the Australia Energy Regulator's Draft Decision in the Connection Charge Guideline Review 2022*, 21 November 2022.

installers servicing their communities'.[16] Information in the Distribution Annual Planning Reports is confined to what is required in the Rules. As explained in section 2.2, we included in the final guideline a requirement for DNSPs to communicate to stakeholders the reasons for static zero limits being imposed.

2.5 Network augmentations that do not meet economic test

In the explanatory note to the draft guidelines, we considered that if the cost to remove the constraint outweighs the benefit, the specific customer should pay for the cost to remove the constraint. Otherwise, this would lead to capital expenditure that is neither efficient nor prudent. We considered that this was a reasonable approach in the draft guideline.

Draft clauses 7A.1.10 and 7A.1.12 proposed the charging methodology for residential and non-residential customers, respectively, who seek to fund a network augmentation to remove a static zero limit where it is not prudent nor efficient to augment the local network to increase the rooftop solar hosting capacity.

Stakeholder feedback and AER position

There was support from DNSPs for the draft position applied in subclause 7A.1.1(b) that customers wishing to avoid a static zero limit would contribute to or pay for the costs of the required network augmentation.

The ECA sought clarification of this requirement. The ECA interpreted this subclause 'to mean that consumers who have the means and choose to will be able to pay their way out of receiving a zero static export limit'.[17] The ECA asked if we predicted that there will be instances when a consumer will not be able to pay to reverse a zero static export limit.[18]

We anticipate that the cost of augmentation would typically be significantly larger than the additional benefit to the customer arising from more export of energy. We expect very few individuals will choose this option. Nevertheless, we included in the final guideline a requirement that DNSPs include a cost reduction factor. The cost reduction factor is based on the projected future increase in export service incomes to the DNSPs from other connections. The increase in export service income arises from the increase in the volume of rooftop solar surplus energy being able to feed into the grid because of the augmentation. It is also important to note that a key principle for network service charges is to avoid undue cross subsidies. To waive the requirements for people seeking augmentation that is not prudent and efficient will result in higher than necessary network charges to all customers.

Ausgrid wanted to ensure that 'networks have the ability to generally review customers' requests before agreeing to the proposed augmentation to make sure they are efficient and do not have any unintended consequences'.[19] Accordingly, Ausgrid suggested draft clauses

---

[16] Energy Consumers Australia, Energy Consumers Australia submission to the Australia Energy Regulator's Draft Decision in the Connection Charge Guideline Review 2022, 21 November 2022.

[17] Energy Consumers Australia, Energy Consumers Australia submission to the Australia Energy Regulator's Draft Decision in the Connection Charge Guideline Review 2022, 21 November 2022.

[18] Energy Consumers Australia, *Energy Consumers Australia submission to the Australia Energy Regulator's Draft Decision in the Connection Charge Guideline Review 2022*, 21 November 2022.

[19] Ausgrid, *Ausgrid submission re AER's draft connection charge guidelines Version 3.0 for consultation*, 21 November 2022.

7A1.10 to 7A.1.13 be amended to only provide for this where a network agrees with the customer's request. We believe that additional limitations should not be placed on customers willing to contribute to the cost of the network augmentation. If the augmentation would result in other network issues, other additional costs may be necessary. If this is the case, all relevant costs should be charged to the customer who sought the service and is willing to pay for the service.

CPU and SA Power Networks (SAPN) did not support the cost revenue test applying if a connection applicant wishes to pay to remove an export constraint under the alternative control service (ACS) category because the test should only apply to standard control services (SCS).[20],[21] This is correct and final clause 7A.1.13 has been enhanced to clarify this point.

SAPN, CPU and the ENA queried the 30-year time frame over which residential connections are calculated (assumptions about export charge revenue over this time period is uncertain, as is any projection of future additional micro embedded generator connections).[22],[23],[24]

The time frames outlined in draft clauses 7A.1.10 and 7A.1.11 were designed to match the cost-benefit test time frame detailed in chapter 5 of the Connection charge guidelines. However, we agree that to accurately calculate the expected additional revenue over a long period of time could be problematic given the fast-paced nature of rooftop solar and uncertainty on how rooftop solar export charges will be set. We have provided clarity and guidance in the final guideline on how to estimate the future revenue flow.

2.6 Reviewing static zero limits

In the explanatory note to the draft guideline we proposed that the requirement to review a customer's static zero limit following augmentation that will lead to the removal of the static zero limit was reasonable and was consistent with the position proposed by most DNSPs. The implementation of this position was contained in draft clause 7A.1.7.

We also agreed with submissions that supported regular reviews. We considered that regular reviews would place a discipline on DNSPs to consider the proactive removal of static zero limits not related to other network events. Therefore, we proposed that a customer with a static zero limit under draft 7A.1.6 may seek a review of this limit 5 years after the connection is completed and that the requirement should be included in DNSPs' model standing offers. While it could be argued that the review period could be longer or shorter than 5 years, our position was that the period of 5 years allows for a balance between the cost to the DNSPs to undertake an assessment and the potential financial loss to consumers resulting from not being able to export to the grid. Given that there are likely to only be limited circumstances

[20] CitiPower, Powercor and United Energy, *Connection charge guideline review – static zero export limits – draft guidelines*, 21 November 2022.

[21] SA Power Networks, *AER Connection Charge Guideline Review – Issues Paper*, 21 November 2021.

[22] SA Power Networks, *AER Connection Charge Guideline Review – Issues Paper*, 21 November 2021.

[23] CitiPower, Powercor and United Energy, *Connection charge guideline review – static zero export limits – draft guidelines*, 21 November 2022.

[24] Energy Networks Australia, *AER Connection Charge Guideline Review – Draft Guideline and Explanatory Statement*, 21 November 2022.

where this could occur, we considered this would not be an onerous task for affected DNSPs.

Stakeholder feedback and AER position

Submissions did not oppose clauses that made review mechanisms available to customers. However, Ausgrid and the ENA sought further clarification of the review mechanism wording as it was said to be too broad in that the word 'any' would require networks to trigger a review for any augmentation work[25][26].

TasNetworks sought further clarification of the review mechanisms in terms of their availability and triggers, having noted the observation in our explanatory note that there are likely to be only limited circumstances in which a customer might seek a review of a static zero limit[27].

The intent of draft clause 7A.1.7 was to link reviews to a material change in network circumstances that would lead to the removal of the static zero limit (as proposed by DNSPs in earlier consultation) and not 'any' network augmentation. To this end, we have clarified the wording in final clause 7A.1.8 to address the point that 'augmentations' that trigger a review only relate to augmentation undertaken by DNSPs with a purpose to expand rooftop solar and other distributed energy resources' hosting capacity.

2.7 Other issues

Finally, TasNetworks expressed a preference that the guideline refer to the 'application' of static zero limits, rather than their 'imposition'. In its view, to impose a condition on the export of energy by a connection applicant 'suggests an arrangement which is excessive, arbitrary or not sanctioned by the regulatory framework, when the restriction of exports is not sanctioned by the regulatory framework, when the restriction of exports is none of those things.'

We agree in principle with TasNetworks, but we consider that the word impose is appropriate because static zero limits are a substantial constraint on consumers.

[25] Ausgrid, Ausgrid submission re AER's draft connection charge guidelines Version 3.0 for consultation, 21 November 2022.

[26] Energy Networks Australia, *AER Connection Charge Guideline Review – Draft Guideline and Explanatory Statement*, 21 November 2022.

[27] TasNetworks, *RE Connection charge guideline review*, 21 November 2022.

3 Glossary

Term	Definition
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
DNSP	Distribution network service provider
ECA	Energy Consumers Australia
ENA	Energy Networks Australia
NER or Rules	National Electricity Rules
static zero limit	static zero export limit

Attachment A

Relevant clauses of the NER

The NER specifies that the purpose of the Connection charge guideline is to ensure that connection charges:[28]

(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.

New Rule 5A.E3(c)(8) requires that the Connection charge guideline must:

describe the circumstances (or how to determine the circumstances) under which a Distribution Network Service Provider may offer a static zero limit to a micro embedded generator for the purposes of clause 5A.F.1(c)(2).

Notes:

Micro embedded generation 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).

Predominantly micro embedded generators are solar panels on residential properties but also include battery systems.

New 5A.E.3(d1) requires that:

In developing guidelines dealing with static zero limits for the purposes of paragraph (c)(8), the AER must ensure that static zero limits are offered only where consistent with the purpose in clause 5A.E.3(b1), which may include where reasonably required due to:

(1) system limitations, whether in particular circumstances or at particular locations or otherwise; or

(2) limitations on the capabilities of plant or equipment of Distribution Network Service Providers or retail customers.

New 5A.F.1(c) prescribes that:

Where the connection applicant is a micro embedded generator, the connection offer must not specify a static zero limit except:

(1) where the connection applicant requests the static zero limit; or

(2) in circumstances permitted by the Connection charge guidelines.

---

28 Rule 5A.E.3(b) of the NER