Maximising benefits from local electricity generation (Export limits)

Decision paper

7/04/2026

ELECTRICITY AUTHORITY
TE MANA HIKO

Executive summary

Investment in distributed generation is growing in New Zealand. Harnessing more of these local energy resources – such as rooftop solar, batteries and emerging vehicle-to-grid technologies – supports our electricity networks and benefits all electricity consumers. This is through a more secure electricity supply and ultimately lower costs.

The Electricity Authority Te Mana Hiko (Authority) wants to maximise the benefits from distributed generation (DG). As part of this, we proposed changes to DG export limits, which are the maximum amounts of electricity a DG owner is permitted to supply (export) to the network at any given time.

Export limits are essential safeguards for the network. Allowing too much electricity to flow through network infrastructure at any one time could overload equipment, create an unstable supply and cause safety risks. Export limits are therefore an important tool distributors use to ensure households and businesses have a consistent, reliable and uninterrupted electricity supply.

However, setting export limits too low can result in inefficiently low investment in DG. It can reduce supply from local generation, which can increase the need for more costly network infrastructure upgrades to meet demand, increasing electricity costs. Further, it reduces the benefits to community resilience in electricity supply that can be gained from DG.

Following consultation in October 2025, we have decided to proceed with a package of Code amendments that enable more efficient, generally higher, export of locally generated electricity across the country. We have made some changes to the proposals as a result of feedback. Distributors will still need to ensure new limits maintain safe and reliable electricity networks. The package of Code amendments will:

- prevent unnecessarily reducing use of cheap electricity
- help avoid the need for expensive network infrastructure upgrades
- strengthen network resilience and deliver long-term benefits for all New Zealanders.

This decision paper sets out the consultation feedback we received, our response, and our final decisions to amend the Electricity Industry Participation Code 2010 (Code).

Our Code amendments create a nationally consistent approach to setting more efficient export limits

We have decided to amend Part 6 of the Code to introduce key changes to require more efficient export limits:

- Default 10kW export limit for small-scale DG
  A default static export limit of 10kW will apply for applications under the Part 1A process in the Code for straightforward, small-scale DG connections up to 10kW. Alternatively, distributors can offer a dynamic or flexible export limit (with a minimum 10kW limit when the export is not being controlled during congested periods), or apply lower static limits where justified, after a standardised network assessment.
- Standardised export limit network assessment methodologies
  Industry will develop:
  - a standardised Export Limits Assessment Methodology for small-scale- DG where distributors propose limits below 10kW for individual installation control points[1] (ICPs) or small groups of ICPs connected to the same section of low voltage line, or to assess alternative dynamic or flexible limits as noted above

[1] Installation control point means a point of connection at which an electricity consumer or generator is connected to a network.

- a Bespoke Export Limits Assessment Methodology for large-scale DG greater than 10kW, under the Part 2 DG Code application process.

These methodologies will support a nationally consistent, transparent and technically robust approach to setting export limits, when a flexible limit is proposed or when network conditions mean a limit lower than 10kW is needed, or to assess limits for larger-scale DG connections.

- Updated inverter standards and settings
  The Code will mandate the latest inverter standards, while still allowing distributor discretion to apply different inverter-related conditions or settings where necessary (eg, due to network constraints). The updates include the Code requiring:
  - default adoption of 'Australia A' voltage response, frequency and protection settings in the inverter performance standard AS/NZS 4777.2:2020
  - adherence to the inverter installation standard AS/NZS 4777.1:2024 for Part 1A DG applications
  - adherence to the inverter performance standard AS/NZS 4777.2:2020 (including amendments 1 and 2) for all low voltage DG applications.

We have also decided to make several other minor Code amendments, which are detailed in sections 5 to 7 of this paper.

The changes we made to the proposals balance higher exports with managing network constraints

Submissions showed strong support for unlocking more value from local electricity generation. Many submitters noted that existing export limits can unnecessarily restrict generation, reduce consumer returns and increase system costs. At the same time, distributors and other industry stakeholders emphasised the need to manage genuine local network constraints.

We have made several changes to our original proposals in response to submitter feedback. A key change is allowing distributors to also offer dynamic or flexible export limits as an alternative to the static 10kW default. Dynamic or flexible limits would allow DG export at maximum system capacity (eg, at times above 10kW) when there are no constraints on the network and reduce exports when required. This means distributors would only need to limit exports for the periods the network is constrained, rather than applying 'blanket' lower limits that always apply.

Other changes to the proposals include allowing industry more time to develop the export limit assessment methodologies, not requiring CEO certification of the bespoke assessment methodology process, and tightening the associated disputes process.

We consider this package of amendments strikes an appropriate balance by providing a clear national default export limit, improving transparency and consistency and retaining flexibility for distributors to manage network conditions. The amendments also support a transition over time towards more flexible and dynamic export arrangements.

Implementation will involve industry and Authority monitoring

We intend the Code amendments to be gazetted (formally publicised as final) by mid-April 2026, with provisions coming into force in stages, being at 28 days, four months, or six months after gazetting. This is to give the industry sufficient time to develop the export limits assessment methodologies and prepare to implement our Code changes, which will require different levels of planning. During that time industry will also monitor any network impacts of adopting the Australian voltage response settings in this country.

Provided the monitoring shows no adverse effects of the Australian voltage settings, we will work with Standards New Zealand to incorporate these into a revised inverter performance standard AS/NZS 4777.2.

The Australia A inverter settings include a frequency setting that is slightly higher than the current New Zealand setting. We are adopting this frequency setting for a limited time only, for ease of implementation. This is because adopting the whole Australian settings profile (voltage, frequency and protection settings) in inverters is easier to implement than only adopting one aspect (the voltage settings).

We intend to start revision of the inverter performance standard, in collaboration with Standards New Zealand, later this year. This will allow the frequency settings to revert to current New Zealand settings (which are likely better in the long run), while ensuring the voltage settings are updated for the new expanded allowable New Zealand voltage range (potentially to match Australian settings), informed by the industry monitoring.

We will also monitor implementation outcomes and DG penetration levels to inform any future refinements or review of the regulatory framework, before high penetration levels have the potential to cause issues for networks.

Most distributors have already started to increase export limits for residential connections

In recent months, most distributors have already moved to default 10kW export limits for residential connections or are working towards this. Of the 30 distributors as at 1 April 2026, 25 indicated they had default residential export limits of 10kW or greater, a further 4 were working towards this, and one was not currently considering it. This indicates most distributors already feel capable of meeting this default. However, we wish to mandate the default to ensure national and ongoing consistency, and a link to a standardised assessment for any lower limits.

Our broader work improves the efficiency of distribution networks

These decisions represent the first part of stage two of our ‘Network connections project’. This project aims to make distribution networks more efficient, lower costs for consumers, and improve the security and resilience of the electricity supply.

The first stage of the Network connections project focused on creating faster, easier and more consistent application processes for those connecting to the network or upgrading an existing connection. Future stages will consider issues such as application processes for residential solar, and the fees connection applicants pay for distributors to process their applications.

Alongside this work, we are also improving connection pricing methodologies, so they are more efficient and consistent across distributors.

Contents

1 Purpose

1.1 This paper sets out the Electricity Authority Te Mana Hiko's (Authority's) decision to amend the Electricity Industry Participation Code 2010 (Code) to ensure that export limits for distributed generation (DG) provide the most benefit possible for New Zealanders.

1.2 This followed release of our October 2025 consultation paper *Maximising benefits from local electricity generation*.

1.3 This paper:

(a) explains the key elements of the final Code amendment, including where this diverges from the Code amendment initially proposed in the consultation paper

(b) discusses issues raised in feedback, including key themes, and our response to these

(c) notes how the Code amendment is consistent with our statutory objectives

(d) explains why we consider that our approach is preferable to alternatives

(e) sets out the final Code amendment

(f) Outlines our intended next steps.

2 We are amending the Code to ensure export limits provide greater benefits

2.1 The Authority has decided to amend Part 1 'Preliminary Provisions' and Part 6 'Connection of distributed generation' of the Code. This is to ensure distributors set DG export limits at levels that will provide greater benefits to DG owners, electricity networks, and New Zealanders in general.

2.2 An export limit is the maximum amount of electricity a DG owner is permitted to supply, or export, to the network at any given time. Export limits are expressed as 'maximum export power thresholds'[2] in our Code drafting.

2.3 We are also making associated amendments to linked provisions, such as inverter-related standards, that also support more efficient export limits.

2.4 The final Code amendment is set out in Appendix A.

2.5 Table 1 below provides a summary of all our key proposals (A1, A2, B, C) and sub-proposals as consulted on, and decisions. Details on these proposals, submitter feedback, our response, and decisions can be found at the pages listed.

Table 1: Proposals and decisions on changes to Part 6 of the Code

Proposal	Authority decision	Page
A. Proposals to improve export limits for small-scale DG		
A1: The Code sets a default 10kW export limit and allows for distributors to set lower limits where appropriate using an industry-developed export limits assessment methodology (ELAM)	Implement an amendment from what was proposed Amendment: • As a further alternative to the 10kW static limit, the distributor may also offer applicants the choice of a dynamic or flexible export limit set using the industry-developed export limits assessment methodology, allowing exports at the maximum determined limit, or lower limits, subject to network conditions (ie, exports may be above or below 10kW at certain times)	15
Industry to develop an export limits assessment methodology (ELAM)	Implement an amendment from what was proposed Amendment: • Clarify that 'network safety' includes any impacts to the network affecting power quality or reliability, such as thermal constraints	18
Requirements for distributors to alter the default 10kW limit	Implement an amendment from what was proposed Amendment: • Distributors are not required to publish a signed statement by the distributor's CEO that export limits have been determined in accordance with Code requirements and ELAM	19
Distributors cannot limit nameplate capacity of Part 1A and Part 1 applications	Implement what was proposed without changes	20

[2] 'Maximum export power' is defined in the Code as " … maximum active power exported into the local network or embedded network at an ICP of a distributed generator, and is equal to—
(a) the nameplate capacity of the distributed generation minus the minimum load at the point of connection; or
(b) the power export limit imposed by an active export control device."

Proposal	Authority decision	Page
Require the 2024 version of the inverter installation standard for Part 1A applications	Implement what was proposed without changes	21
A2: The Code sets default voltage response settings for inverters (using Australian settings) and allows for distributors to set different settings where appropriate	Implement an amendment from what was proposed Amendment: • As well as Australian voltage settings, the Code also sets Australian frequency and protection settings, which can also be altered where appropriate	22
Citing the Australian inverter disconnection settings	Implement what was proposed without changes	25
Require the latest inverter performance standard for Part 1A applications	Implement what was proposed without changes	26
B. Proposals to improve export limits for larger-scale DG		
The Code mandates distributors use an industry-developed bespoke export limits assessment methodology when setting export limits for larger DG	Implement what was proposed without changes	28
Requirements for distributors when using the BELAM	Implement what was proposed without changes	30
Applicants being able to dispute export limits set using the BELAM	Implement an amendment from what was proposed Amendment: • applicants may only dispute the BELAM-related assessment where they disagree with the export limit or associated conditions set by the distributor, not the assessment methodology itself • an applicant may lodge a dispute up to 30 days following the distributor determining the export limit and any conditions • as part of arbitration, either party may request an independent network engineering assessment	31
C. Proposal for all low voltage DG applications		
The Code mandates use of the latest inverter performance standard for all low voltage DG applications	Implement what was proposed without changes	33

3 We consulted on Code changes to improve export limits

3.1 On 8 October 2025 we released our consultation paper *Maximising benefits from local electricity generation*. In our paper we noted that DG, such as rooftop solar, batteries, and local-scale generation, will play a growing role in New Zealand's electricity system.

3.2 These technologies can strengthen resilience during severe weather or disasters, reduce emissions, and help lower household and national electricity costs. We therefore seek to remove unnecessary barriers to DG investment and use so consumers and the wider system can capture more value from this localised electricity.

3.3 A central focus of our consultation was improving how distributors set DG export limits. While these limits are essential for maintaining safe voltages and network reliability, current rules give distributors broad discretion. This has sometimes resulted in unnecessarily low static limits such as a 5kW cap for residential solar.

3.4 These low limits can reduce the returns for system owners, discourage larger installations, and prevent the electricity network from accessing lower-cost generation. The Authority noted that some limits were based on outdated inverter standards that may not reflect actual network capacity.

3.5 To address this, the Authority proposed amendments to the Code to support distributors setting more efficient, generally higher export limits while upholding safety and reliability. This included mandating a default 10kW export limit on low voltage networks for straightforward connections, while retaining distributors' ability to set lower limits where needed. We also proposed prohibiting distributors from imposing any limits on the nameplate capacity of installed distributed generation.

3.6 Other proposed amendments included citing the latest inverter performance and installation equipment standards in the Code, requiring distributors to publish their export limits, and mandating the use of an industry-developed methodology to determine export limits when the default 10kW limit is not appropriate, and for larger capacity DG applications.

3.7 These steps form part of the Authority's broader effort to ensure New Zealanders can access the full economic and resilience benefits of distributed generation as its role grows within the national energy transition.

This work is part of the Network connections project

3.8 Our export limits work is part of stage two of our wider Network connections project to improve industry rules and support more efficient connections to networks. Stage one of the project was completed in 2025, including a suite of changes to make network connection processes faster, easier, more consistent and equitable. Other work in stage two will consider the application processes for residential solar and other small-scale DG, and the fees access seekers pay for distributors to process their applications.

3.9 In parallel, the Authority has also been doing work on Distribution connection pricing reform, to improve connection pricing methodologies so they are more efficient and consistent across distributors. Together, this work supports the efficient, reliable and cost-effective operation of networks for all New Zealanders' long-term benefit.

We have considered submissions from a range of stakeholders

3.10 The Authority received 117 submissions on our consultation paper. These included submissions from:

(a) individuals – many being homeowners with solar installations (80)

(b) distributors (13)

(c) community organisations/advocacy groups – generally supporting electrification transition (12)

(d) businesses – including solar providers, electrification consultancies, and others (7)

(e) industry representative organisations (5).

3.11 During the consultation, Rewiring Aotearoa encouraged people to make submissions on our proposals and provided standard templates with key points. Of the submissions we received, 51, mostly from individual members of the public, used the Rewiring Aotearoa templates extensively, or to some extent, while making other points.

3.12 The submissions are available in full on our Maximising benefits from local electricity generation webpage. Appendix B provides a list of submitters.

3.13 We acknowledge some feedback from submitters concerned about the number of overlapping Authority consultations requiring feedback. We recognise the significant regulatory change and consultation processes particularly impacting distributors over recent months. The current dynamic sector context and need for adaptation means the Authority does need to respond. But we are considering how we can best schedule our consultation processes, so they are manageable for all those interested in submitting.

Submissions covered diverse views

3.14 We received submissions from diverse perspectives both agreeing or disagreeing with our proposals, sometimes conditionally, and offering further comment. Most individuals, community organisations/advocacy groups and businesses generally supported our key proposals.

3.15 The views of distributors and some industry representative organisations (particularly Electricity Networks Aotearoa (ENA), and the Electricity Engineers Association (EEA)) were more mixed regarding support or disagreement, which differed between proposals. We have therefore sometimes divided comment between distributors, ENA and the EEA, and other submitters, where we provide submitter feedback in this paper.

3.16 General themes raised by submitters are set out in section four. Specific submitter feedback on proposals is in sections five to seven. We have made several changes to proposals for Code amendments in response to submission feedback.

3.17 Some submission content fell outside the project's scope and may be considered in a future stage of the Network connections project or referred to another relevant initiative.

3.18 The Network Connections Technical Group (NCTG)[3] has considered the submissions and provided advice to the Authority on our response.

[3] https://www.ea.govt.nz/about-us/our-people/our-advisory-and-technical-groups/network-connections-technical-group

4 General themes raised by submitters

4.1 This section discusses general themes arising from submissions and our brief high-level response. More detailed narrative on submitter feedback that informs these themes, the Authority's response and our decisions, is contained in sections five to seven, which cover our three categories of proposals.

Theme 1: Strong support for unlocking more value from local generation, with caution about universal application

4.2 Most submitters, but particularly individuals, community groups and electrification advocates, strongly supported reforms enabling greater use of locally generated electricity. Our proposed default 10kW export limit was particularly well supported. Current (lower) export limits were widely seen as unnecessarily wasteful, reducing returns on investment and limiting broader system benefits such as lower wholesale prices, improved resilience and emissions reduction. Raising export limits was viewed as a practical and overdue step to better align regulation with modern solar system sizes and consumer expectations.

4.3 However, submitters also stressed that these benefits are not uniform across all networks. Distributors and industry bodies emphasised that network capability varies significantly by location, particularly between urban and rural areas. They cautioned that reforms must account for these differences. This is to avoid reliability risks or unintended impacts in constrained parts of the network, reinforcing the importance of implementation that is sensitive to local conditions.

Authority response

4.4 The Authority has decided to implement the 10kW default export limit to realise benefits to consumers and networks. Distributors will still be permitted to set lower limits, where justified, to account for specific local network conditions.

Theme 2: Preference for flexible, adaptive approaches

4.5 While most submitters accepted a higher default export limit as an improvement, there was consistent concern about static, one-size-fits-all thresholds. A wide range of stakeholders argued that fixed limits risk becoming inefficient as uptake grows, network conditions change, and hosting capacity is consumed - particularly disadvantaging later connection applicants.

4.6 This led to strong support for flexible or dynamic DG export limits.[4] Dynamic export limits adjust continuously responding to 'real-time' network conditions. Flexible export limits adjust periodically based on predefined schedules, forecasts, or operating scenarios. Submitters viewed such approaches as more future-proof and equitable, allowing higher exports overall while managing voltage, thermal and congestion risks. Many supporters of a static default often described it as an interim measure rather than a long-term solution.

Authority response

4.7 The Authority recognises that dynamic or flexible export limits will ultimately provide the most benefits as regards export levels while maintaining safe and effective network operations. Further, they support equity by limits being linked to dynamic export capacity irrespective of when a connection application is made. We have decided to amend our

[4] The terms dynamic or flexible export limits are sometimes used interchangeably but we view these as distinct approaches as described.

proposal so that distributors may opt to offer alternative dynamic or flexible export limits for DG applications under the streamlined Part 1A process, by using the ELAM.

Theme 3: Transparency and consistency are critical to consumer and system outcomes

4.8 Submitters across many groups highlighted frustration with inconsistent and opaque export-limit practices. Consumers and installers reported difficulty understanding constraints before investing, while distributors noted the risks created by unclear or non-standardised processes. Greater transparency was therefore widely supported to improve trust, reduce disputes and enable better investment decisions.

4.9 Standardised methodologies, published assessments and clearer documentation were seen as essential to achieving fairness and predictability across networks. Submitters linked transparency not just to consumer protection, but also to system efficiency—arguing that clear signals help drive better-sized systems, increased storage uptake and reduced administrative burden over time.

Authority response

4.10 The Authority considers the amendments have a strong focus on transparency and consistency including:

(a) The default 10kW export limit providing an explicit consistent benchmark for exports

(b) The ELAM and BELAM standardising export limit assessment methodology across networks and increasing information provision to applicants/consumers

(c) Mandating use of the latest inverter installation and performance standards for more consistent application across networks.

Theme 4: Cross-subsidisation and cost allocation remain central concerns

4.11 A recurring concern was how increased export capability would affect costs and who would ultimately bear them. While many submitters emphasised system-wide benefits, distributors and some consumer advocates warned of potential cross-subsidisation if higher exports accelerate network upgrades that are funded by all consumers, including those without distributed generation. Some submitters also noted that increased export limits risked 'shutting out' future consumers who, at the point they want to participate, may be faced with a lack of available capacity on the network.

4.12 These concerns shaped support from submitters for safeguards such as targeted cost recovery, lower default limits, or pairing higher export limits with storage and self-consumption measures. Even some submitters broadly supportive of reform framed their views through a fairness lens, stressing that benefits to DG owners should not come at disproportionate cost to non-participating consumers. As noted in paragraph 4.7 above, dynamic or flexible limits mitigate this issue.

Authority response

4.13 Ultimately, we consider removing barriers to DG exports and more DG connecting will reduce costs to all consumers in the long-term. This is particularly as increased battery and EV uptake (and later V2G) better align solar with export at peak demand periods and self-consumption need. This means consumers without DG will benefit from the advantages DG brings to the system, including lower electricity prices. This is through advantages including:

(a) reduced investment in network infrastructure

(b) fewer and shorter network interruptions

(c) reduced wholesale electricity prices, especially during dry year and/or low wind situations.

4.14 Thus, moving to more efficient export limits aligns with the Authority's main statutory objective to promote the reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers. This is by ultimately lowering costs and better ensuing security of supply for all.

4.15 We do not expect our amendments to accelerate network upgrades. Where there is a current network constraint, distributors will have the ability to set lower export limits, for specific local conditions providing these are justified using the ELAM.

4.16 As we noted in our consultation paper, we have already made decisions where we expect retailers to offer higher rates for electricity sold into the network at peak times by 1 July 2026. This will fairly reward DG owners and incentivise other consumers to invest in DG.[5]

4.17 Cost allocation for network upgrades and pricing is out of scope of the export limits-related proposals in this paper. However, we acknowledge the importance of these issues and will be considering them as part of our ongoing network connections and distribution connections pricing-related work programmes, and as part of our work reviewing the DG pricing principles in Part 6 of the Code.

Theme 5: Implementation timing and readiness are as important as policy direction

4.18 Many submitters emphasised the importance of realistic transition arrangements and sector readiness. Distributors and industry bodies highlighted constraints on data quality, modelling capability and engineering resources, particularly alongside other concurrent regulatory reforms. There was concern that moving too quickly could lead to rework, conservative decision-making or inconsistent outcomes.

4.19 At the same time, other submitters warned against delaying reforms that unlock known consumer and system benefits. Across these views, there was common agreement that reforms should be designed to be future-proof. This is to allow for evolving technology, improved network visibility and dynamic export control - so that near-term changes do not create long-term barriers.

Authority response

4.20 The Authority has allowed an extra two months (ie, totalling six months) for development of the ELAM and BELAM to reduce possible rework required by distributors. We have also clarified that the BELAM is only required for larger-scale DG applications.

4.21 Regarding futureproofing for dynamic export control, as noted previously, we have allowed an option to implement dynamic or flexible export limits. Our proposals also include provision for static limits to be reviewed where there are material changes to the network.

4.22 Overall, we consider our proposals provide significant implementation flexibility to allow for challenges like data quality, modelling capability and engineering resources, also recognising current regulatory change demands.

[5] https://www.ea.govt.nz/projects/all/energy-competition-task-force.

5 A: Proposals to improve export limits for small-scale distributed generation

5.1 This section sets out our proposals, submitter views, the Authority's responses, and decisions on the first category of our proposals; that is, our proposals to improve export limits for small-scale distributed generation up to 10kW.[6] Our original proposals and decisions are summarised in table 2 below.

Table 2: Proposals and decisions for small-scale DG

Original proposal	Authority decision
A1: The Code sets a default 10kW export limit and allows distributors to set lower limits where appropriate using an industry-developed export limits assessment methodology (ELAM)	Implement an amendment from what was proposed Amendment: • As a further alternative to the 10kW static limit, the distributor may also offer applicants the choice of a dynamic or flexible export limit set using the industry-developed export limits assessment methodology, that allows exports at the maximum determined limit, or lower limits, subject to network conditions (ie, exports may be above or below 10kW at certain times)
Industry to develop an export limits assessment methodology (ELAM)	Implement an amendment from what was proposed Amendment: • Clarify that 'network safety' includes any impacts to the network affecting power quality or reliability, such as thermal constraints
Requirements for distributors to alter the default 10kW limit	Implement an amendment from what was proposed Amendment: • Distributors are not required to publish a signed statement by the distributor's CEO that export limits have been determined in accordance with Code requirements and ELAM
Distributors cannot limit nameplate capacity of Part 1A and Part 1 applications	Implement what was proposed without changes
Require the 2024 version of the inverter installation standard for Part 1A applications	Implement what was proposed without changes
A2: The Code sets default voltage response settings for inverters (using Australian settings) and allows for distributors to set different settings where appropriate	Implement an amendment from what was proposed Amendment: • As well as Australian voltage settings, the Code also sets Australian frequency and protection settings, which can also be altered where appropriate
Citing the Australian inverter disconnection settings	Implement what was proposed without changes
Require the latest inverter performance standard for Part 1A applications	Implement what was proposed without changes

[6] The second and third categories of our proposals are covered in sections 6 and 7 respectively.

Proposal A1: Default 10kW export limit

5.2 This proposal was to introduce a 10kW default static export limit for small-scale DG (such as residential solar and battery systems) connected via the streamlined Part 1A application process in the Code. Distributors would be able to set lower static export limits but only if justified, through an industry-developed export limits assessment methodology (ELAM). This approach would ensure limits were grounded in actual network capability.

5.3 The intention is to encourage larger systems and unlock broader benefits. These benefits include deferred infrastructure costs, reduced emissions, greater network resilience and ultimately reduced overall electricity costs to consumers.

Submitter views and Authority response

5.4 Overall, there was widespread and strong support for the default 10kW export limit across submitters, except from many distributors, amongst whom support was often mixed or conditional. Support was strongest from individuals (often homeowners with solar) and community organisations. However, advocacy and industry representative organisations and business stakeholders were also generally supportive.

5.5 Submitters in support agreed there were widespread benefits flowing from the proposal. These submitters considered it would boost local electricity sharing, improve economic benefits, add future flexibility, simplify participation, cut peak demand, and deliver environmental and network benefits.

5.6 Several individuals who were homeowners with solar expressed frustration with their investment due to export limits or stated they had not understood this limit before investing. There was some suggestion that if less than the default 10kW export limit is applied, distributors should be required to upgrade to allow 10kW within a set timeframe.

Some submitters advocated for more future-focussed dynamic approaches

5.7 While acknowledging the 10kW default as a useful step, some submitters considered that conditions allowing dynamic or flexible export limits were ultimately the best way forward. These submitters viewed them as a future-focused approach that adapts to ‘real-time’ network conditions. They argued this avoids inequitable outcomes associated with static limits (ie, ‘first movers’ using up network capacity) and better reflects modern distributed energy use. This dynamic/flexible approach was also favoured by several distributors.

5.8 The Authority agrees that dynamic or flexible export limits are ultimately more efficient and appropriate than static limits because they respond to ‘real-time’ network conditions and reduce ‘first-mover’ advantages.

5.9 The Authority has therefore decided to adopt a combined approach: retaining the 10kW static default for Part 1A applications but explicitly enabling distributors to offer dynamic or flexible limits where technically feasible. These alternatives will allow exports at, or potentially above 10kW when networks are unconstrained, and only below 10kW where justified by the ELAM.

5.10 Under these approaches distributors would only need to limit exports for the periods the network is constrained, rather than applying ‘blanket’ lower limits that always apply. We note the Code does not currently prevent distributors implementing dynamic or flexible limits, but this has not occurred to any real extent to date.

5.11 Several submitters highlighted that default limits should consider emerging technologies, particularly vehicle-to-grid (V2G). They recommended the default 10kW limit be increased, as standard V2G chargers operate at 11kW, and a lower default could limit future uptake.

5.12 The Authority accepts V2G exports at 11kW may be constrained if default 10kW limits are set. However, distributors may approve 11kW or higher limits where network conditions allow, and dynamic limits will further support efficient emerging V2G export in future.

5.13 Other submitters queried whether limits should apply per phase or per property, particularly where multiple households are behind a single connection point.

5.14 The Authority notes the 10kW default applies per ICP for simplicity, though distributors may permit higher exports on multi-phase supply.

Distributors, the ENA and EEA views and Authority response

5.15 Distributors were divided on support for the 10kW default limit with about half supportive, while some of this support was conditional, including:

(a) that allowance for flexible or dynamic export limits is also provided

(b) there needs to be alignment of pricing principles to ensure incentives for battery adoption

(c) that lower export limits need to be consistent by using a standardised assessment approach.

5.16 The Authority notes it is out of scope of this consultation to consider pricing matters. However, we are separately considering pricing-related issues, including improving pricing methodologies, in our distribution connection pricing reform workstream. Alongside this work, the Authority also has a separate but related workstream reviewing the DG pricing principles in Part 6 of the Code.

5.17 We note a standardised assessment approach for lower export limits for individual ICPs or small groups of ICPs connected to the same section of low voltage line is provided by the ELAM.

5.18 The EEA conditionally supported the proposal to adopt a default 10 kW export limit noting:

> *"… this provides clear, nationally consistent expectations for consumers, installers, and distributors. A default export limit of this size reflects international trends toward larger home solar PV systems, aligns with increasingly common inverter sizes in the New Zealand market, and enables households to obtain better returns from their investments*."

5.19 However, the EEA noted that while many urban networks have sufficient low voltage (LV) hosting capacity to accommodate 10kW systems, rural and remote feeders often have conditions that could lead to voltage excursions above statutory limits.

5.20 Therefore, the EEA's support was conditional on a 10kW default only where justified, paired with the ability for distributors to apply lower limits under an ELAM assessment. Our decision on the 10kW default allows distributors to set lower limits, providing these are justified by an ELAM assessment.

5.21 The ENA did not support the 10kW default limit, considering the Authority should instead focus on regulating to enable dynamic operating envelopes through technology such as remotely manageable smart inverters. This would allow dynamic export limits by adjusting limits based 'real-time' network conditions.

5.22 Several distributors also took this position noting dynamic or flexible approaches enable higher exports when the network can accommodate them and reduce them only when necessary. Some distributors also supported using established Australian models, such as

South Australia's flexible export frameworks. Vector outlined the benefits of dynamic export limits as follows:

> *"They allow hosting capacity to be allocated fairly among all consumers by adapting to changing circumstances over time, avoiding inequitable outcomes with static limits where early adopters monopolize capacity. They also enable more DG connections without compromising network safety and reliability. Further, they help manage extreme periods with coincident high generation and low load, creating an opportunity to improve utilisation of existing network headroom."*

5.23 Our decision to allow dynamic or flexible export limits now explicitly provides for distributors to offer these approaches.

5.24 Several distributors cautioned that higher default limits could accelerate consumption of available hosting capacity, potentially disadvantaging future consumers. Dynamic operating envelopes (eg, using dynamic or flexible export limits) were seen as the best longer-term solution to this concern.

5.25 The Authority considers that because DG penetration is still low (about 3.5% nationally),[7] the risk of early adopters monopolising hosting capacity is small in the near to medium term. We also note many systems will not export 10kW due to self-consumption, roof-size constraints and system affordability. However, our decision to allow dynamic or flexible limits also mitigates this issue.

5.26 Some distributors argued that historic 5kW limits reflect legacy network design and higher limits could lead to thermal constraints as distributed generation increases. Others noted gaps in low-voltage network visibility, making modelling and assessment more challenging.

5.27 We note that since our consultation, most distributors have now applied a 10kW default or are working towards it. The Authority has published a Progress tracker, updated monthly, with each distributors current status. We recognise differences in distributors' low voltage network visibility may influence some distributors' voluntary moves to a 10kW default residential limit.

5.28 However, the already widespread voluntary move by distributors indicates there are not significant barriers to adopting this limit and use of the ELAM process will enhance network visibility. We want to 'lock in' the 10kW limit by mandating it in the Code, so it is a formal default. Mandating also means we can link any lower limit to the need for an ELAM, for individual ICPs or small groups of ICPs connected to the same section of low voltage line, which supports consistency and transparency.

Authority decision

5.29 The Authority has decided to amend the Code for Part 1A DG applications to set a default static export limit of 10kW, unless:

(a) the distributor offers a dynamic or flexible export limit set using the ELAM that the applicant may choose to alternatively adopt, that allows exports at the maximum determined limit, or lower limits, subject to network conditions

(b) the distributor sets a static export limit lower than 10kW for individual ICPs or small groups of ICPs connected to the same section of low voltage line, providing a network assessment using the ELAM justifies a lower limit due to network conditions.

[7] Electricity Authority - Electricity Market Information (EMI) https://www.emi.ea.govt.nz/.

Industry to develop an export limits assessment methodology (ELAM)

5.30 As part of Proposal A1 for a default 10kW export limit, the Authority also proposed an industry-developed ELAM. This would be used when distributors want to set export limits lower than 10kW. We also noted we expected the involvement of ENA and the EEA in the ELAM's development and noted industry may want to consider the EEA guide *Connection of Small-Scale Inverter Based Distributed Generation* and Powerco's *Utility Scale Distributed Generation Standard* as the basis for the ELAM.

Submitter views and Authority response

5.31 There was strong support for the industry-led development of an ELAM across submitters. Submitters generally considered the ELAM would support national clarity, transparency, fairness, consistency, standardisation and efficiency in setting export limits.

5.32 However, some submitters also considered the ELAM should be monitored by the Electricity Authority to ensure:

(a) the methodology remains fair and transparent

(b) it is not used by distributors to:

(i) unnecessarily limit distributed generation

(ii) avoid improving network management approaches to support more customer DG investment.

5.33 We expect distributors to only apply lower export limits to the sections of their network that are constrained. Imposing lower 'blanket' defaults for a whole, or large portions of a, network, including unconstrained sections, would be difficult to justify unless the ELAM supports that.

5.34 Other comments included that the ELAM should be developed by industry with consumers, small generators, solar industry representatives and academia. One submitter urged the Authority to commission an independent expert review of the ELAM to be undertaken from the customer perspective. Several submitters noted the methodology would have to account for localised network risk factors.

5.35 The Authority will engage with ENA and the EEA on the ELAM's development, with the EEA likely taking the technical lead in development. We will encourage these industry bodies to seek input from a broad range of stakeholders, including DG owners/consumers. We consider this process will lead to a strong methodology, workable for all parties.

ENA, EEA and distributor views and Authority response

5.36 Most distributors, the ENA and EEA supported industry development of the ELAM. However, the ENA and some distributors were concerned there was not a mechanism in the proposed Code drafting for distributors to include consideration of future small-scale DG consumers on network capacity. We do not support including a buffer for future applications in this regard because this would likely:

(a) require difficult, hypothetical estimates of future connection scenarios and timeframes

(b) cause overly conservative limits as a future safeguard for potential future applications that may never materialise

(c) reduce the benefit that can be gained now by allowing higher exports.

5.37 Despite this, we expect projections of future growth could still be part of the ELAM. This will be to identify at what DG penetrations (trigger points) more stringent export limits may apply.

That would be so distributors could then project/monitor numbers to estimate when an ELAM reassessment would likely be necessary to determine what those lower limits should be.

5.38 There was also comment that ELAM assessment would need to be frequently repeated as DG penetration increases. We do not consider this an issue as network hosting capacity will only gradually diminish over time, or with material network changes.

5.39 Some submitters expressed concern that the proposed ELAM-related Code wording, referring to protecting 'network safety' was not broad enough to cover all possible network constraints (eg, thermal constraints). To make this clear we have adjusted the Code wording to include any issues reasonably likely to affect power quality or reliability, including but not limited to thermal constraints.

5.40 The EEA also recommended that the ELAM and BELAM be directly linked to the EEA's Technical Connection Guidelines. We agree this appears beneficial, if the industry agrees, noting there may be alternative approaches. We do not consider this needs to be reflected in the Code providing industry agree to, and use, a consistent methodology across all distributors.

Authority decision

5.41 The Authority has decided to amend the Code:

(a) To require that where distributors seek to apply a lower static export limit than 10kW for Part 1A applications, they must use the industry-developed ELAM. Further, this assessment can only be based on currently connected DG, or applications currently being assessed. However, where possible, it would be appropriate for the ELAM to include projections of DG penetrations (trigger points) where a reassessment can be performed to determine if lower export limits need to apply in future

(b) To clarify that 'network safety' includes relevant impacts to the network affecting power quality or reliability, such as thermal constraints.

Requirements for distributors to alter the default 10kW limit

5.42 For Proposal A1, where distributors sought to set a lower static export limit than the 10kW default for parts of their network, the Authority also proposed distributors be required to:

(a) undertake a network assessment to determine in what areas, if any, a lower export limit will apply, using the industry-developed export limits assessment methodology (ELAM)

(b) publish the network assessment, and a copy of the ELAM (or a link to it), on the distributor's website

(c) publish a signed statement by the distributor's CEO that export limits have been determined in accordance with Code requirements and the ELAM

(d) include easily accessible lists or maps, for applicants, of areas on a network where lower than 10kW export limits apply

(e) repeat the network assessment where there has been a material change on the network (eg, changes to low voltage conductors (lines/cables) or transformers, or high voltage network changes) – the distributor can also reassess earlier if they choose.

Submitter views and Authority response

5.43 Most submitters supported the requirements, considering they would improve transparency, consistency, and consumer confidence.

5.44 However, many distributors, the ENA and EEA were opposed to the requirement that CEOs attest that the export limit determined aligned with Code requirements and the ELAM. It was widely considered inappropriate and impractical for the CEO to attest to what was a technical assessment. The EEA recommended replacing CEO endorsement with certification by an appropriately qualified engineering authority.

5.45 The Authority accepts that CEOs of distribution businesses, with their strategic role, are unlikely to be best placed to certify technical network assessments. We have therefore removed this requirement. We are comfortable that the Code obligations requiring distributors to follow the standardised ELAM provides sufficient assurance of good practice.

5.46 One distributor considered the requirement to publish network assessment lists and/or maps as severely underestimating the administrative and compliance costs for small distributors. This was especially when most distributors had poor data on their low voltage networks, and the methods currently proposed relied solely on low voltage network data.

5.47 We note the current Code already obliges distributors to publish a list of areas on its network that are congested.[8] We acknowledge it will require some additional effort and resource from distributors to publish lists/maps of areas with lower export limits. However, this should only be necessary for limited parts of networks and not require significant resource to produce.

5.48 Conducting ELAM assessments will also increase low voltage visibility, which is necessary for distributors to assess congestion as DG on networks grows. We see this as a necessary investment to meet customer needs and effectively manage networks.

5.49 Aside from review following material changes on the network, one submitter also recommended that network assessments be reviewed every two years. We consider it is sufficient for distributors to review ELAM-set limits following material changes to networks, rather than after a set time, to avoid unnecessary assessments. We note distributors can reassess earlier if they choose.

Authority decision

5.50 The Authority has decided to amend the Code to require that where distributors set a lower static export limit than the 10kW default for parts of their network, they must:

(a) undertake a network assessment to determine in what areas, if any, a lower export limit will apply, using the industry-developed export limits assessment methodology (ELAM)

(b) publish the network assessment, and a copy of the ELAM (or a link to it), on the distributor's website

(c) include easily accessible lists or maps, for applicants, of areas on a network where lower than 10kW export limits apply

(d) repeat the network assessment where there has been a material change on the network (eg, changes to low voltage conductors (lines/cables) or transformers, or high voltage network changes) but may reassess earlier if they choose.

5.51 We have decided not to require that distributors publish a signed statement by the distributor's CEO that export limits have been determined in accordance with Code requirements and ELAM.

Distributors cannot limit nameplate capacity of Part 1A and Part 1 applications

5.52 The proposal was to prohibit distributors imposing limits on the nameplate capacity of DG systems under Part 1A or Part 1 application processes (for DG systems ≤ 10kW). While

[8] Clause 6.3(2)(db)

distributors could still enforce export restrictions based on network constraints, they could not restrict the installed generation or inverter capacity. This would mean systems with larger capacity than distributor thresholds could still qualify under the streamlined Part 1A process, noting the export level may still be limited.

5.53 This change would ensure that customers could install appropriately sized systems to meet their usage needs (eg, large solar arrays to charge EVs or power multiple appliances), removing a barrier that had previously limited investment and reduced flexibility in system design.

Submitter views and Authority response

5.54 This proposal was widely supported across all groups of submitters. Submitters agreed that assessments should focus on actual export rather than nameplate size. This would allow investment in larger systems for self-consumption and maximise consumer benefit while avoiding limits that hinder storage, flexibility, and innovation.

5.55 However, several distributors opposed or were cautious about the proposal. One distributor opposed removing nameplate limits without minimum visibility/controllability for larger behind-the-meter systems. They considered this created operational risk (voltage, harmonics, reverse power flows). Another distributor noted the proposal may result in DG installations having oversized inverter capacity relative to their intended export power, altering the behaviour of voltage response modes.

5.56 The Authority recognises the concerns about larger systems and operational risks, but we consider these manageable as:

(a) we are requiring compliance with the latest inverter installation and performance standards (AS/NZS 4777.1:2024 and AS/NZS 4777.2:2020) to ensure advanced voltage and frequency response capabilities

(b) export limits remain enforceable and are the primary mechanism for managing network impacts

(c) distributors will be using the standardised ELAM to ensure technical risks are managed consistently

(d) distributors would be free to introduce thresholds for enhanced requirements (eg, telemetry, remote-settable controls, dynamic connection agreements, data sharing) for systems above a certain size or complexity.

Authority decision

5.57 The Authority has decided to amend the Code to prohibit distributors imposing limits on the nameplate capacity of DG systems under Part 1A or Part 1 application processes (for DG systems ≤ 10kW).

Requiring the 2024 version of the inverter installation standard for Part 1A applications

5.58 The proposal would require Part 1A connection applications to meet the latest 2024 version of the inverter installation standard (AS/NZS 4777.1:2024). This standard reflects improvements over the 2016 version regarding safety and performance. It also aligns with the 2024 standard now being cited in the Electricity (Safety) Regulations 2010.

Submitter views and Authority response

5.59 This proposal received widespread support across submitters with most considering that adopting the latest installation standard was best practice. Submitters noted that the

standard was well-established, widely understood, and covered all the key safety and performance requirements. The EEA noted modern installation standards reduced installation risk, improved safety outcomes, and aligned installers' practices nationally.

5.60 A small number of submitters expressed concerns. These included that it was unclear how many DG systems this would exclude which would otherwise be capable of safely exporting more than 5kW. Further, some submitters considered the proposal could increase costs or limit availability of inverters for small residential systems and may place additional burden on installers.

5.61 We note this proposal is not retrospective and will only apply to inverters installed after the transition period ends. Therefore, we expect this will only impact a very low number of systems. DG-related technology is rapidly advancing, and our regulatory framework must adapt to support efficiency and safety. Overall, our view is that using the updated standard to ensure best practice safety and performance takes precedence.

5.62 To further mitigate this issue, inverters compliant with the 2016 inverter installation standard will still be able to be accepted by distributors for connection. However, applications involving these will need to be made under the bespoke Part 1 or Part 2 application processes to ensure any risks are identified and managed.

5.63 One submitter recommended that the latest version of standards (rather than a specific version of the standard) should be automatically cited in the Code - otherwise, innovation and productivity is compromised.

5.64 We note the Legislation Act 2019 requires documents incorporated into legislation, such as standards, to be the version of the document that is current at the time the legislation is promulgated. This means we cannot allow the Code to cite later versions of the standard.

Authority decision

5.65 The Authority has decided to amend the Code to require that Part 1A connection applications meet the 2024 version of the inverter installation standard (AS/NZS 4777.1:2024).

Proposal A2: Default Australian inverter response settings

5.66 Under this proposal, inverters installed as part of Part 1A applications would be required to default to 'Australia A' volt-watt and volt-var response settings in tables 3.6, 3.7, 3.8 and 4.3 in the inverter performance standard, AS/NZS 4777.2:2020 - incorporating Amendments 1 and 2, (the inverter performance standard).

5.67 These settings respond to the recently introduced wider allowable low voltage range in New Zealand (230V ±10%) and follow international best practice. This is while allowing higher export levels and still maintaining network stability. The approach also had benefits given the joint Australian/New Zealand inverter market.

5.68 Distributors could still apply alternative settings, if justified by local technical conditions.

Submitter views and Authority response

5.69 This proposal received strong support across submitters. Submitters considered it would reduce costs, expand options, improve compliance, streamline installation, and supports future technologies like V2G.

5.70 In other opinions, one submitter considered this should be a last resort tool activating only when genuine network stress is occurring. They considered that normally, dynamic operating envelopes should adjust exports proactively and gradually, so network stability is

maintained without disrupting consumer generation or autonomy. As noted in 5.9 above, we have decided to explicitly provide for distributors to offer dynamic or flexible limits to move towards this.

5.71 Another submitter considered it would be preferable for all distributors to use the inverter performance standard voltage response settings. They considered bespoke settings would be difficult to manage, requiring customised profiles on each inverter. We consider flexibility important but expect distributors will only use alternative settings in situations where the standard settings are not appropriate. We consider the limited number of customised profiles can be managed case-by-case.

Distributor, ENA and EEA views

5.72 Most distributors supported the proposal while several also noted conditional support or expressed concerns. Unison and Centralines, for example, considered

> 'This will enable greater export flexibility, reduce unnecessary curtailment, and improve consumer returns. It also supports harmonisation across markets and simplifies compliance for manufacturers and installers.'

5.73 Both the ENA and EEA conditionally supported default 'Australia A' voltage inverter response settings. The ENA supported distributors adopting a single, consistent set of volt-watt and volt-var settings for inverters, unless local technical considerations support a deviation. The EEA noted the 'Australia A' settings were:

(a) widely supported in inverter firmware

(b) already familiar to installers

(c) immediately implementable

(d) aligned with the ±10% statutory voltage range.

5.74 However, the ENA was concerned the entirety of the 'Australia A' settings may not be appropriate for use in the New Zealand context, (eg, frequency response settings). This issue was also raised by some other submitters, including noting that the Australian frequency settings may be outside Transpower's optimal settings. The EEA also noted technical caveats due to the differences between the Australian and New Zealand networks.

5.75 Given the above, before the settings were confirmed as defaults in the Code, the EEA noted distributors and manufacturers needed time to monitor power quality behaviour, inverter responses, and curtailment impacts of the 'Australia A' settings.

5.76 The EEA therefore recommended adopting Australia A as the initial inverter response setting but that the Code provide for development of a New Zealand-specific voltage response profile if power quality monitoring reveals issues. The EEA also considered any future New Zealand profile should be incorporated through the Standards NZ / Standards Australia process and reflected in regulations. This would provide certainty now, while ensuring long-term suitability.

Australian frequency and voltage settings

5.77 The Authority acknowledges submitter concerns that the Australian frequency settings may not be appropriate for New Zealand network conditions and the Australian voltage settings need to be monitored for appropriateness and changed if necessary.

5.78 We note that while our consultation paper narrative only proposed a change to Australian inverter voltage response settings, the attached Code drafting could be read to mean all Australian settings were to be applied – including frequency. Nonetheless, we have been

advised by industry experts that it is complex and risks inaccurate settings to require inverter installers to directly input specific settings to capture Australian voltage but New Zealand frequency, and this may also not be possible in some inverters.

5.79 Adopting the Australian settings in full (voltage, frequency and protection settings), which can be set by the manufacturer or easily as a set menu option, is therefore the most practical for implementation. We consequently have decided to amend the Code to take this approach. However, this means no change is needed to our originally proposed Code drafting, as adoption of the Australia A settings includes frequency settings.

5.80 We support the EEA's recommendation that it works with distributors to monitor the impact of the Australian voltage response settings. We propose this industry monitoring occurs for at least six months following gazetting of our Code change to adopt the Australian settings.

Review of the inverter performance standard AS/NZS 4777.2:2020 voltage response settings

5.81 We also intend to initiate a review of the inverter performance standard voltage response settings six months after the Code is gazetted. This review would be undertaken by Standards New Zealand, in consultation with relevant technical experts. If there are no issues identified with the Australian voltage settings through industry monitoring, we will recommend these (or other settings) be adopted for New Zealand into the standard, whilst reverting to the original New Zealand frequency settings.

5.82 Once the new inverter performance standard is in place, inverters could contain a complete set of updated New Zealand settings available as a set menu option. This would remove implementation complexity and risk of inaccurate settings identified in 5.78 above.

5.83 We expect the new voltage response settings would be in the revised standard and reflected in the Code around 18 months from our current changes. Over this period, we will get the benefit of the Australian voltage response settings, allowing more DG exports.

Transpower engagement on Australian frequency settings

5.84 Transpower monitors frequency on the national transmission grid as part of its system operator role. We engaged with the system operator following inverter frequency issues raised by submitters. Transpower is concerned that if there are a material number of inverters with Australian frequency settings installed in the South Island, Transpower may need to review the amount of reserves procured to manage the risk of an extended contingent event. Transpower have no concerns about the North Island using the Australian frequency settings.

5.85 The issue of concern is that the Australia A setting will disconnect inverters at 47Hz, whereas the New Zealand disconnection setting is 45Hz. The Australian frequency setting is not a problem in the North Island, as it is below the level where Automatic Under Frequency Load Shedding (AUFLS) has already done its work to restore frequency in the North Island.[9] However, 47Hz is in the middle of the AUFLS band in the South Island.[10] The system operator notes it may be unhelpful for South Island inverters to disconnect generation at 47Hz when the AUFLS system is still working to restore frequency.

5.86 Despite this issue, we are comfortable proceeding with the proposed amendment. That is because there will only be a limited number of inverters adopting these settings for a limited time, compared to the total installed inverter capacity (ie, only new inverters for around 18

[9] In the North Island AUFLS starts operating at 47.9hz and is complete at 47.0hz – see Frequency-barometer.pdf

[10] In the South Island, AUFLS starts operating at 47.5hz and is complete by 45.5hz

months will have the Australian frequency setting). The affected inverters will also be spread across networks nationally (ie, not all in the South Island).

5.87 The Authority will monitor the numbers of inverters and their capacity adopting the Australian frequency settings in the South Island and engage on an ongoing basis with Transpower. This is to determine whether additional instantaneous reserve may be needed to help manage any frequency drop. We note these inverters would retain Australian frequency settings for approximately 8-12 years (typical inverter lifespan).

Inverter settings do not address breach of thermal limits

5.88 One distributor highlighted that inverter standards address voltage but do not stop a breach of thermal limits. They therefore cannot protect against network assets ratings being exceeded. This distributor noted that managing thermal constraints required external coordination, such as dynamic export limits or flexible connection arrangements, often controlled by distributors via signals or curtailment systems. And this was why Australian networks combined smart inverter settings with external control schemes for thermal headroom.

5.89 We acknowledge that inverter standards in themselves do not address a breach of thermal limits. However, distributors will have flexibility to adjust export limits using the ELAM to address this, where they have the capability to detect issues. As noted in 5.9 above, distributors can also offer dynamic or flexible limits.

Inverter response modes do not constitute dynamic export limits

5.90 Some distributors pointed out that, contrary to narrative in our consultation document, inverter voltage response modes under the inverter performance standard did not constitute dynamic export limits. Dynamic export limits were where the distributor has control of export limits under inverter demand response modes, not inverter power quality response modes.

5.91 Our reference to inverter voltage response modes under the inverter performance standard as dynamic export limits was for ease of understanding, referring to voltage response modes allowing more flexible management of export in the inverter. This is as opposed to static inverter settings. However, our new Code definitions of dynamic and flexible export limits align with submitters' understanding of these approaches, linked to control settings specified by the distributor.

Authority decision

5.92 The Authority has decided to amend the Code to set default voltage response, frequency, and protection settings for inverters using 'Australia A' settings in the inverter performance standard and allow distributors to set different settings where appropriate. This decision confirms the originally proposed Code drafting.

Citing Australian inverter disconnection settings for sustained high voltage

5.93 In response to the increase in allowable voltage in New Zealand (230V ±6% to ±10%), the Authority proposed to cite the 'Australia A' settings for sustained inverter operation when voltage is high. This meant inverters would automatically disconnect when the average voltage at the inverter is above 258V for 10 minutes (table 4.3 of the inverter performance standard), rather than 249V as currently. This would consequently allow higher levels of DG exports.

Submitter views and Authority response

5.94 This proposal was also well supported across submitters with distributors having no real concerns. Submitters noted these settings supported trans-Tasman consistency and predictable, safe inverter operation during prolonged high-voltage conditions.

5.95 Concerns raised by some submitters included (with our response):

(a) These control measures should be last resort tools, with smart-meter visibility and dynamic operating envelopes in place, distributors acting as DSOs can anticipate issues and adjust exports smoothly. Response: we note the Authority has now provided for distributors to offer dynamic or flexible limits.

(b) The settings may reduce exported energy unnecessarily, especially in residential systems with mostly on-site consumption. Response: we consider the settings are best practice for New Zealand's new allowable voltage range.

(c) New Zealand networks may differ from Australian networks, so the settings may need adaptation to avoid unnecessary disconnections. Response: settings can be reviewed and refined over time if local network performance data indicates needed adjustments.

5.96 Distributors, the ENA and EEA generally had no concerns about the proposal, although the ENA noted these settings were aimed at managing voltage but did not address potential thermal constraint issues. The Authority recognises this limitation, which would need to be addressed separately by distributors (eg, by using the ELAM to set lower export limits).

5.97 One distributor noted no concerns provided the settings still comply with the Electricity (Safety) Regulations 2010, clause 28 'Voltage supply to installations'. We note prior to 13 November 2025[11], the nominal limit was 243.8V (230V+6%) and the New Zealand inverter settings required disconnection for sustained high voltage at 249V. The Australia A disconnection settings operate at 258V which is the same margin above the nominal voltage range of 230V+10% (253V).

Authority decision

5.98 The Authority has decided to amend the Code to cite the 'Australia A' inverter disconnection settings for sustained inverter operation when voltage is high.

Requiring the latest inverter performance standard for Part 1A applications

5.99 The Authority proposed to update the Code to cite the latest version of the inverter performance standard (AS/NZS 4777.2:2020 - incorporating Amendments 1 and 2)[12] for Part 1A applications. This standard represents international best practice for performance and safety. Amendment 2, which came into effect in Australia on 23 August 2025, contained several relevant improvements.[13]

Submitter views and Authority response

5.100 Again, this proposal was well supported across submitters. Distributors had no concerns providing industry could determine its own voltage response settings (other than Australian settings) where needed, which our proposal allowed.

[11] On 13 November 2025 regulation 28 of the Electricity (Safety) Regulations were amended to increase the voltage range from 230V±6% to 230V±10%.

[12] The Code is unable to cite 'evergreen' standards. That is, only the version of the standard cited in the Code that is current on the date the Code citation came into effect applies, not later revisions to that standard.

[13] These included improvements to supply type terminology, removal of International Electrotechnical Commission (IEC) 62109 requirements for non-network connected battery only products, better documentation and marking, and electric vehicle supply equipment (EVSE) specific clauses.

5.101 Submitters who were individuals expressed some concerns including that there may be higher inverter and installation cost, increased installer training required, and more limited inverter availability.

5.102 We note Australia mandated the standard in December 2021, where it operates effectively. This also means there is a common trans-Tasman product market with most inverters in New Zealand already complying with the standard. Installation costs are also effectively unchanged as we are initially adopting the whole Australian settings profile. Therefore, we do not consider adopting the inverter performance standard will create significant issues or cost.

Authority decision

5.103 The Authority has decided to amend the Code to require the latest version of the inverter performance standard (AS/NZS 4777.2:2020 - incorporating Amendments 1 and 2) for Part 1A applications.

6 B: Proposals to improve export limits for large-scale distributed generation

Proposal B: Distributors must use an industry-developed bespoke export limits assessment methodology (BELAM) for Part 2 applications

6.1 This section sets out our proposals, submitter views, the Authority's responses, and decisions on proposals to improve export limits for large-scale distributed generation over 10kW. Our original proposals and decisions are summarised in Table 3 below.

Table 3: Proposals and decisions for larger-scale DG

Original proposal	Authority decision
B. The Code mandates distributors use an industry-developed bespoke export limits assessment methodology (BELAM) when setting export limits for larger DG	Implement what was proposed without changes
Requirements for distributors when using the BELAM	Implement what was proposed without changes
Applicants being able to dispute export limits set using the BELAM	Implement an amendment from what was proposed Amendment: • applicants may only dispute the BELAM-related assessment where they disagree with the export limit or associated conditions set by the distributor, not the assessment methodology itself • an applicant may lodge a dispute up to 30 days following the distributor determining the export limit and any conditions • as part of arbitration, either party may request an independent network engineering assessment

6.2 Proposal B would require that for DG applications over 10kW, distributors must use a standardised, industry-developed bespoke export limits assessment methodology (BELAM) to determine export limits under the full (Part 2) DG application process. This was a similar approach to using the ELAM for small-scale DG applications.

6.3 The proposal aimed to ensure consistent, transparent, and equitable limit-setting across networks, reducing uncertainty for mid-sized or larger installations, including farms and community systems.

6.4 In developing the BELAM, the Authority suggested industry may wish to consider the EEA's guide *Connection of Generating Plant: Guide to Assist and Advise Distribution Network Engineers*. Alternatively, industry could consider other industry guides such as Powerco's *Utility Scale Distributed Generation Standard*.

Submitter views and Authority response

6.5 This proposal also had strong support across most submitter groups, albeit more conditional support from distributors. Submitters in support considered the proposal improved transparency, fairness, consistency, and efficiencies of scale, also ensuring limits reflect network conditions. It would also facilitate efficient network planning and consumer confidence.

6.6 Some individual submitters raised concerns such as the BELAM may hinder innovation by distributors defaulting to the methodology rather than improving the network to manage more DG. We consider this a low-risk outcome as the BELAM should still allow distributors flexibility to take innovative approaches to local conditions. Further, assessments are already necessary for larger-scale DG applications.

6.7 Another submitter considered the proposal would 're-centralise' control with distributors and risk recreating fragmentation and inconsistency. We disagree and consider a standardised, national approach provides a framework for consistency across distributors.

ENA, EEA and distributor views and Authority response

6.8 While most distributors supported the proposal, around half of this was conditional support, with a small number not supportive. As with the ELAM, the ENA supported the proposal from the standpoint that the Authority had provided some autonomy and flexibility to the industry on how to achieve its intended outcomes.

6.9 The EEA supported the approach of using a consistent methodology, considering this would improve transparency and reduce variation in how assessments are carried out across the country. Its proviso was that it was essential that the BELAM (like the ELAM) was aligned with the EEA's Technical Connection Guidelines. It considered this would avoid duplication, ensure technical consistency, and allow the methodology to evolve over time as new evidence emerged.

6.10 We agree the BELAM should be aligned with the EEA's Technical Connection Guidelines. However, we do not want to restrict industry if they want to use a different methodology as the BELAM, provided all distributors use the same BELAM. However, this can be achieved without mandating in the Code.

6.11 Comments associated with conditional support from distributors included the BELAM:

(a) should be principles-based

(b) would not be applicable in every situation

(c) needs to build in a foundation that:

(i) allows justified local departures

(ii) sets minimum data inputs/assumptions

(iii) includes review/revocation of limits as conditions change

(iv) addresses cost-allocation explicitly.

6.12 We consider the above points can be considered, as appropriate, by distributors in implementing the BELAM. However, given distributors will already be required to implement a standard methodology, we wish to add as few further requirements as possible.

6.13 Points made by distributors disagreeing with the proposal (with our responses) included:

(a) The BELAM would require assumptions that would not accommodate large variations in circumstance across New Zealand distributors. Response: industry can develop the BELAM to accommodate any reasonable appropriate variations in circumstance across New Zealand distributors.

(b) Distributors' network Connection and Operation Standards (COPS) and detailed power flow analysis should perform the BELAM's function. Response: the BELAM's standard methodology will be a framework working along with distributors' COPS, with the

assessments still being informed by local network and customer needs – these will be complimentary, not exclusive.

(c) A standard methodology is unnecessary as there are not multiple divergent options around determining network capacity. Applying certain principles may be more useful. Response: we consider, as do many submitters, that there is benefit from a standardised network assessment methodology (which could include principles) to ensure consistency, which can also provide a framework for best practice.

(d) A Code amendment is needed as there is limited provision in the Code for recovery of costs prior to a connection agreement being made, as application fees are at a fixed rate. Response: pricing and cost recovery issues will be considered as part of the Authority's connection pricing and broader network connections work programmes – noting the Authority had indicated in its consultation paper (as reflected in the proposal below) we expect applicants to meet assessment costs involving the BELAM.

Authority decision

6.14 The Authority has decided to amend the Code to require distributors use a standardised, industry-developed bespoke export limits assessment methodology (BELAM) to determine export limits under the full (Part 2) DG application process.

Requirements for distributors when using the BELAM

6.15 The Authority noted that network assessments for DG above 10kW may be undertaken by a distributor or a specialist third party (eg, power systems engineering consultancy), with the cost met by the applicant. Like when distributors are using the ELAM, the Authority also proposed requirements for distributors to benefit applicants (eg, to help tailor applications for most benefit). These were that distributors must:

(a) provide the export limits analysis, using the BELAM, to the applicant

(b) where the analysis has deviated from the BELAM, provide an explanation to the applicant

(c) where viable, and unless the applicant agrees otherwise, provide the applicant with export limit options and their associated costs.

Submitter views and Authority response

6.16 Submitters across all groups overwhelmingly supported this proposal, considering it will enhance transparency, consistency and fairness.

6.17 Other points included that distributor deviations from the BELAM should be limited, justified, technically scrutinised, and not impose unnecessary administrative burdens. This is while allowing information requests and third-party assessments to streamline the process. We consider industry can build these requirements into the BELAM as appropriate.

6.18 Further, we consider the benefits of the requirements to applicants outweigh the limited administrative costs to distributors, and provision of information should be automatic. The requirement to provide the applicant with export limit options and associated costs (arguably the most onerous) is also subject to viability and negotiation

6.19 The EEA considered documentation should be aligned with formats and templates developed through the EEA's Technical Connection Guidelines. We consider the EEA can agree this with distributors during the BELAM's development.

6.20 The Authority also notes that our proposed Code drafting did not include reference to the requirement consulted on that distributors must provide the applicant with export limit

options and their associated costs. We have therefore added this requirement to the final Code drafting.

Authority decision

6.21 The Authority has decided to amend the Code to require that when using the BELAM: distributors must:

(a) provide the export limits analysis, using the BELAM, to the applicant

(b) where the analysis has deviated from the BELAM, provide an explanation to the applicant

(c) where viable, and unless the applicant agrees otherwise, provide the applicant with export limit options and their associated costs.

Applicants being able to dispute export limits set using the BELAM

6.22 The proposal allowed applicants to dispute export limits set using the BELAM for Part 2 applications. This would require a generator that is a 'participant'[14] and the distributor, to initially resolve disputes in good faith, then enter mediation and/or arbitration, if required. A non-participant distributed generator could also raise a dispute with the distributor. The distributor would then be obliged to resolve the dispute in good faith and offer mediation to the non-participant.

Submitter views and Authority response

6.23 This proposal was supported by DG applicant and user-related submitter groups, but not the ENA, EEA and distributors. Submitter comments included that the disputes process needed to be fair, transparent, time bound, low-cost, and independently reviewed. Other comments included it should apply to all DG applications, support consistent capacity allocation, and assign costs appropriately.

6.24 We consider the disputes process we proposed had the ability to meet most of these requirements, without being overly prescriptive, to allow flexibility. However, while the compliance costs, investment, and complexity associated with larger-scale applications warrants a dedicated dispute process, we do not consider such a process should be extended to small-scale DG applications.

6.25 This is because the small-scale process is simple, streamlined, low cost and standardised (as opposed to the bespoke process for large scale DG applications). Applicants will still be able to engage with distributors on any issues and have the option to raise a dispute with Utilities Disputes or allege a Code breach with us.

6.26 We agree a more timebound process would be beneficial, so consider the applicant must be required to raise the dispute within 30 days after the export limit is determined. We do not consider it appropriate to place more time limits on the process, to ensure each part can run its proper course, including possible arbitration.

6.27 One submitter considered external costs incurred by the applicant for the challenge should be payable by the distributor if their original assessment is proven incorrect. Our proposal required that distributors must use the BELAM for network assessments for larger DG. Providing they do this in good faith we do not consider it appropriate that distributors are automatically charged costs should the initial assessment be determined as incorrect. If a

[14] 'Participant' is defined in the Electricity Industry Act 2010 as those industry participants and specified persons listed in section 7 of the Act as being a participant in the electricity industry (and the extra definition in Code clause 1.5). See: https://www.legislation.govt.nz/act/public/2010/0116/latest/DLM2634330.html#DLM2634330.

dispute goes to arbitration, the arbitrator will have all the relevant information necessary to make an informed decision as to costs and should not be bound by a Code requirement.

ENA, EEA and distributor views and Authority response

6.28 Neither ENA nor the EEA supported the proposal as drafted. ENA, the EEA and several distributors considered a more workable approach would set clearer, objective grounds for dispute, within a narrow, justified scope.

6.29 We acknowledge concerns that there must be clear, objective grounds to dispute BELAM-related assessments. To address this, we consider applicants should only be able to dispute the BELAM assessment on the basis that they dispute the level of export limit set or the associated conditions set.

6.30 Both organisations also considered BELAM-related decisions were technical/engineering matters not suitable for mediation. We disagree. We consider mediation is an appropriate potential step in the process, considering it provides a cost-effective, commonly practiced approach for parties to resolve disputes. We consider a mediation process will be capable of taking account that the BELAM set export limit is fundamentally a technical/engineering decision.

6.31 The ENA also considered that the escalation process was unworkable as various steps are at the discretion of certain parties. We consider the Code drafting is sufficiently open to allow either party to escalate to the next stage in the dispute process, so one party alone cannot prevent this.

6.32 The EEA considered the dispute process needed to culminate in an independent engineering review, not a negotiated outcome. We agree an independent assessment may be useful if the dispute goes to arbitration. We have therefore included that either party may seek an independent engineering review as part of arbitration. This review is to be conducted by a network engineering contractor nominated by the EEA, with costs to be decided by the arbitrator.

6.33 Distributors noted that although a challenge to an engineering assessment may raise liability concerns, applicants always have the option to seek independent verification at their own cost.

Authority decision

6.34 The Authority has decided to amend the originally proposed Code drafting to require that:

(a) an applicant may only dispute the BELAM-related assessment on the basis that they disagree with the export limit or associated conditions set by the distributor, not the assessment methodology itself

(b) an applicant may lodge a dispute up to 30 days following the distributor determining the export limit and any associated conditions

(c) as part of arbitration, either party may request an independent network engineering assessment, to be conducted by a contractor approved by the EEA, with costs to be decided by the arbitrator.

7 C: Proposal for all low voltage applications

Proposal C: mandating the latest inverter performance standard, AS/NZS 4777.2:2020, for all low voltage applications

7.1 This section sets out our proposal, submitter views, the Authority's responses, and decisions on our proposal to apply to all low voltage applications. Our original proposal and decision are summarised in Table 4 below.

Table 4: Proposal and decision for all low voltage applications

Original proposal	Authority decision
C: The Code mandates use of the latest inverter performance standard for all low voltage DG applications	Implement what was proposed without changes

7.2 The proposal was to mandate that all low-voltage DG applications, regardless of capacity, type or complexity (ie, under any application process in the Code), must comply with the inverter performance standard AS/NZS 4777.2:2020, incorporating Amendments 1 and 2.

7.3 Referencing this latest standard in the Code ensures that all new inverters meet international best practice requirements for safety, performance, and interoperability. This complements other export limit reforms by ensuring that inverters possess the necessary capabilities to support efficient integration and network security.

7.4 Distributors retain the ability to set alternative volt response settings to those in the standard should they choose (defaulted to Australia A settings), if these complied with the allowed range in the standard. The Authority considered this may be valuable as networks transition to the wider allowable voltage range of ±10%.

Submitter views and Authority response

7.5 This proposal had very strong support across all submitter groups. Submitters considered the standard was widely accepted and would improve consistency, safety, reliability, and network stability. Further, it would ensure modern inverters respond appropriately to voltage and frequency variations.

7.6 Submitters also noted the latest standard aligns with current manufacturer practice and avoids divergence from Australia. This would also allow more Australian Clean Energy Council approved devices.

7.7 There was some concern expressed that compliant inverters may be slightly more expensive or less available initially, and installers may need guidance to configure systems correctly. For new connections, we acknowledge compliant inverters may be more expensive or less available initially, but we consider this a very small risk.

7.8 We note that Australia has had the 2020 standard in place since 2021 so there should be a good supply of compliant inverters in the trans-Tasman market that can be sourced. Further, many New Zealand distributors already require inverters that comply with the standard.

Distributor views and Authority response

7.9 Distributors overwhelmingly supported the proposal with one noting the latest standard would ensure all new DG installations meet robust standards for voltage and frequency support, fault ride-through, and anti-islanding, enhancing system stability and consumer

protection. It was also noted that many distributors already mandate AS/NZS 4777.2.2020 compliance in their connection standards.

7.10 There was support for retaining an ability to set alternative volt response settings should this be relevant for a particular application, within the allowed range in the standard. We note our decision retains this flexibility.

7.11 One distributor considered there would be difficulty in practice retaining New Zealand settings in the standard but mandating only 'Australia A' voltage response settings. This was because some solar installers will apply a grid code during installation but are not able to modify individual settings thereafter. We note this issue has been resolved by deciding to adopt the entire Australia A inverter settings profile, as outlined previously in paragraphs 5.77-5.80.

Authority decision

7.12 The Authority has decided to amend the Code to require that all low-voltage DG applications must comply with the inverter performance standard AS/NZS 4777.2:2020, incorporating Amendments 1 and 2.

7.13 Distributors will retain the ability to set alternative volt response and frequency settings to those in the standard should they choose (defaulted to Australia A settings), if these comply with the allowed range in the standard.

8 Views on transitional arrangements

Proposal A1: Default 10kW export limit

8.1 We proposed the default 10kW export limit for Proposal A1 comes into force 28 days after gazetting the Code amendment. We considered this was enough time for distributors to implement the default as this was a simple process change for straight forward Part 1A applications. Distributors could also still set alternative limits where necessary.

Mandating the latest inverter performance and installation standards for Part 1A applications

8.2 We also proposed mandating the latest inverter performance and installations standards 28 days after gazetting. We considered this was sufficient time as these are minor and technical Code changes, merely requiring distributors to update documentation for straight forward applications.

Proposal A2: Australian voltage response settings

8.3 We proposed a four-month transition period following gazetting for Proposal A2, mandating the Australia A settings. This provided time for distributors to assess whether alternative volt response settings were needed for parts of their network, and to change documentation.

Proposal B: BELAM development (and ELAM development under Proposal A1)

8.4 We proposed to allow four months following gazetting to develop the BELAM and ELAM before distributors were required to use these. However, we acknowledged Proposals A1 and B required industry to develop an ELAM or BELAM respectively, and that the default 10kW export limit would be in force before these were finalised. Therefore, we also proposed:

(a) industry can use an alternative assessment methodology of their choosing for the first four months after gazetting of the Code amendment, but must apply the BELAM or ELAM after this, including to any analysis done in the previous four months

(b) the distributor's chosen alternative assessment methodology, and any network assessment undertaken, must be published on the distributor's website.

(c) if (a) and (b) are not undertaken, the distributor must use the default 10kW limit for Part 1A applications.

Proposal C: Mandating the latest inverter performance standard for all low voltage DG applications

8.5 We similarly proposed a four-month transition period following gazetting to mandate the use of AS/NZS 4777.2:2020 for all low voltage DG applications. We considered this a reasonable timeframe as there are various updated settings and requirements in the standard that distributors will need to consider. However, distributors would also retain the discretion to set their own volt response settings for inverters.

Changes to Part 6 via stage one of the Network connections project

8.6 We further proposed the above changes would come into effect before upcoming changes to Part 6 via stage one of the Network connections project, which are effective from 1

December 2026 for DG and 1 May 2027 for load requirements. We noted these export limits proposals, if adopted, would continue to apply after those changes come into effect.

Submitter views on transitional arrangements

8.7 Views of submitters on the workability of requirements and timeframes for implementation of the proposals were mixed. Individuals, community organisations/advocacy groups and industry organisations (except ENA and the EEA) largely supported the arrangements. ENA, the EEA and most distributors had certain concerns.

8.8 Rewiring Aotearoa, for example, was supportive stating:

> "*We support the Authority and agree it is important to implement these proposals quickly to deliver consumer benefits. We think that the 4 month transitional timing is fair and reasonable and can ensure effective, efficient and safe implementation. We have seen how some [electricity distribution businesses] EDBs have already raised the default export limit and we think for many EDBs an even shorter timeline is possible*."

8.9 Most submitters across all groups considered the proposed arrangements around implementing the following requirements were workable, or did not raise concerns:

(a) mandating the latest inverter performance and installation standards for Part 1A applications

(b) applying the 'Australia A' inverter settings for Part 1A applications

(c) mandating the latest inverter performance standard for all low voltage applications.

8.10 One submitter expressed concern that short transition periods may make it difficult for homeowners and small installers to source compliant inverters, configure systems correctly, and meet new export-limit or documentation requirements. They suggested the Authority provide a transition period of at least 12–18 months, clear guidance on which rules apply when, and some flexibility for projects already underway.

8.11 This submitter considered this would help ensure a smooth and practical implementation of the new requirements for all residential and small commercial solar generators. We respond at paragraphs 8.20-8.21 below.

8.12 Another submitter considered four months was tight for industry to develop robust ELAM/BELAM methodologies. This submitter was also concerned the 10kW default would take effect before the ELAM was complete, risking inconsistent or poorly justified limits. We respond at paragraphs 8.22-8.24 below).

Distributor, ENA and EEA views

8.13 ENA, EEA and distributor concern about the proposed transitional arrangements also centred on development of the ELAM and BELAM. The ENA considered a four-month timeframe to develop the methodologies, and implementing the 10kW limit before these were developed, was impractical. At least six months was needed for development. It noted the approach should also avoid re-work for distributors in having to reassess limits once the ELAM/BELAM were in place.

8.14 The ENA also noted requiring the industry to develop the ELAM/BELAM was an additional burden during a time of significant regulator-driven change in the sector's connection processes (eg, reforms to Part 6 of the Code).

8.15 The EEA supported the overall structure of the transitional arrangements but also recommended extending the timeframe for developing the ELAM/BELAM to at least six months. This reflected the seasonal slowdown in engineering capacity over December–

February and the need to ensure alignment with EEA's own guideline development process. It noted adequate time was also needed for distributors to update internal processes, IT systems, and COPS, and for installers to adjust to the new standards and settings.

8.16 Distributors generally echoed these concerns about needing more time for ELAM/BELAM development. Some also noting pressures around wider connections and network pricing work programme requirements, and need for consideration of interdependencies.

8.17 One distributor, noting the timeframes were difficult but achievable, suggested considering different transition periods for the ELAM (shorter) and the BELAM.

8.18 Top Energy, for example, recommended a 12-month transition stating:

> *"Development of the ELAM & BELAM to properly take into account the wide variation in circumstances across New Zealand is going to take significantly longer than 4 months and all changes with regard to limits should not take effect until after they have been created, as to implement them before this point would be detrimental to the EA's objectives …"*

8.19 Another distributor considered the arrangements are practical but required a 'backstop' if ELAM/ BELAM were delayed. And that the Code amendments should explicitly include transitional arrangements for the ELAM/BELAM for clarity.

Authority response

8.20 The Authority notes that submitters across all groups generally supported the transitional periods for all the proposals or did not raise concerns. The exception was the period allowed for development of the ELAM and BELAM which ENA, the EEA, several distributors and some other submitters did not consider sufficient.

8.21 We are therefore comfortable retaining our original transition periods for the 10kW default export limit and standards-related proposals. This is noting distributors still have discretion to alter the 10kW default and inverter settings relating to standards where necessary, to give DG applicants and themselves flexibility, and that we have allowed dynamic or flexible export limits in addition to the default static limit. We consider this mitigates some concern around transition periods. The publicised ELAM and BELAM methodologies will also improve transparency of approach for applicants, and distributors can provide further localised information.

8.22 However, accepting submitter feedback, we consider it necessary to allow a further two months for development of the ELAM and BELAM (allowing six months from gazetting of the changes). We acknowledge distributors' concern about re-work being required to reassess lower limits implemented if the 10kW default is in force before the ELAM and BELAM are developed.

8.23 However, we do not consider this is a significant issue given we do not expect it to generate significant numbers of assessments (as many distributors' voluntary moves to 10kW limits illustrate). Further, this will relate only to assessments conducted over the limited period of six months.

8.24 We consider six months is a practical timeframe for industry to develop the ELAM and BELAM, with the EEA already proactively considering this process. We therefore do not wish to incentivise delay to development by agreeing to a 'backstop' provision in the Code in case of delay.

Authority decision

8.25 The Authority has decided to amend the Code to implement the transition periods originally set out in consultation for the following proposals to come into force, except those relating to ELAM and BELAM requirements:

(a) Proposal A1:

(i) mandate default 10kW export limit – 28 days after gazetting

(ii) ELAM development - six months after gazetting (two months extra from consultation proposal)

(iii) mandate the latest inverter performance and installation standards for Part 1A applications - 28 days after gazetting

(b) Proposal A2: mandate Australia A inverter settings – four months after gazetting

(c) Proposal B: BELAM development – six months after gazetting (two months extra from consultation proposal)

(d) Proposal C: mandating the latest inverter performance standard for all low voltage DG applications – four months after gazetting.

9 The amendments align with our statutory objectives and requirements in the Act

9.1 After considering submissions on the Code amendment proposal, the Authority has updated its regulatory statement in accordance with section 39 of the Act. We consider the proposed amendments are consistent with the Authority's main statutory objective to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers.

Objectives of the proposed amendments

9.2 The overarching objective of the proposed amendments was to support more efficient export limits for DG to provide the most benefit possible to DG investors, networks, and all consumers. This was while continuing to ensure safe and effective networks where power quality to all users was maintained.

Submitter views

9.3 Submitters across all groups generally supported the Authority's objectives for the amendments. However, several distributors considered the amendments were not the best means to achieve the objectives or noted other caveats. Key concerns included a view that most distributors would move to 10kW export limits themselves and that the original amendments did not allow for implementation of dynamic export limits.

Authority response

9.4 The Authority notes submitters generally supported the objectives of the proposed amendments. We acknowledge the concerns expressed by distributors. As noted previously, we note most distributors have already moved to 10kW and therefore the operational impact of rule change is much reduced.

9.5 We still consider regulation necessary to ensure national consistency. This approach also ensures consistent consumer benefit. We note distributors will retain flexibility to set alternative limits where justified.

9.6 Considering submitter feedback, we have changed our original proposal so that distributors do not need to set a 10kW export limit if a dynamic or flexible export limit is set instead.

The proposals' benefits are greater than their costs

9.7 The Authority considers the proposals' benefits outweigh their costs. Benefits noted in our consultation paper including boosted DG investment, strengthened network performance, lower electricity prices and enhanced supply security.

9.8 We considered direct costs would largely fall to distributors but not be substantial. We noted the most material distributor costs related to needing to undertake network assessments where they wish to reduce default 10kW export limits. Other distributor costs involved updating processes, documentation, databases and websites and changing their operating practices to meet new Code.

9.9 We also presented an estimate calculating that a 5kW export limit could cost residential solar owners approximately $4.23 million per year in lost revenue. This was due to energy that was generated but cannot be exported, often referred to as 'spilled' electricity. We proposed this loss could be reduced if distributors move to default 10kW export limits.

Submitter views

9.10 Views of submitters on whether the benefits of the proposed amendments outweighed their costs were divided. Most individuals, community/advocacy organisations, businesses and industry organisations considered they did. Conversely, most distributors considered benefits versus costs were overstated.

9.11 A supportive submitter stated:

> "*By doubling the typical export limit (from 5 kW to 10 kW), owners of distributed generation will earn more from exporting surplus power. When more distributed renewable energy is utilized, the whole electricity system benefits through reduced wholesale prices and deferred infrastructure*."

9.12 Another submitter considered the proposals' costs/benefits were location-dependent:

> "*In unconstrained areas, benefits may exceed costs. In constrained areas, costs may exceed benefits due to greater congestion, increased curtailment of utility-scale renewables, operational and balancing challenges, and distributional impacts on consumers*."

9.13 Submitters' views on the Authority's estimate of lost revenue from a 5kW export limit were divided. Most submitters considered the estimate was too conservative. Conversely, distributors considered the estimate was overstated, particularly as some distributors do not currently (as at November 2025) impose a strict 5kW default.

ENA, distributor, and EEA views

9.14 ENA and most distributors did not agree that the proposals' benefits outweighed their costs. ENA noted benefits appeared predicated on the assumption that distributors would not increase their default export limit from 5kW to 10kW without the proposal. Further, many distributors had already done this, were assessing the change, or had no fixed limit.

9.15 Other comments from distributors included that raising default export limits offers little deferral of network upgrades, may harm larger-scale DG through upstream constraints, and could render solar generation uneconomic.

9.16 The EEA considered the benefits broadly outweigh the costs, but the margin is likely narrower than the analysis suggests.

Costs and benefits not previously identified

9.17 Submitters also identified a wide range of potential costs and benefits they considered were not identified in the consultation document or not given enough weight. Most submitters identified further benefits including ability for clearer household/installer planning, lower administrative effort, better EV incentives, and greater opportunities to adopt innovation and advanced technologies.

9.18 Several distributors and other submitters identified further costs. These included that higher export limits could cause cost-shifting to consumers for network upgrades and cross-subsidisation by non-DG owners, unnecessary DG system upsizing, and lower export value.

Authority response

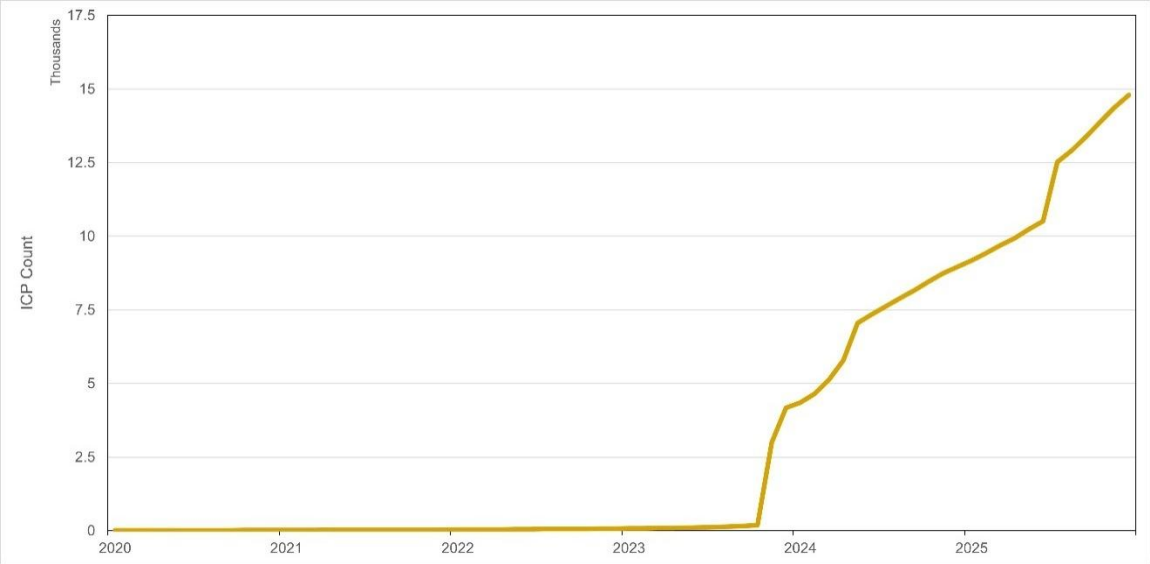
9.19 We acknowledge a key concern from ENA and distributors that the Authority is unnecessarily regulating for the 10kW default. However, we consider our decision 'locks in' more durable benefits all New Zealanders. Further, the flexibility for distributors to implement export limits lower than 10kW where justified, particularly including the new option to also implement dynamic or flexible export limits, mitigates these concerns.

9.20 Further, given most distributors have now voluntarily established 10kW limits or are working towards this, suggests the costs and risks raised are not significant.

9.21 We accept solar DG export does not necessarily coincide strongly with demand peaks. However, this situation will evolve with ongoing electrification and increasing battery installation with solar systems. Battery storage potentially allows solar energy to support peak demand when networks most need it.

9.22 Authority data in Figure 1 below shows that solar with battery installations increased from 20 ICPs in 2020 to 14,791 ICPs in 2025. While we would not expect this exponential growth to continue at this rate, with expected lowering costs of solar systems and batteries we would still expect continued growth in installations.

Figure 1: Growth in installation of solar with battery – 2020-2025 (ICPs)[15]



9.23 Increasing uptake of EVs is also likely to be a key use for household solar with daytime charging, thus using high solar output. Further, expected growth of V2G means EVs will have the ability to export at peak demand times. Higher prevalence of batteries in the form of EVs will mean solar export will increasingly be able to meet demand peaks. Thus, we expect higher battery prevalence (EV or solar-related) will provide net benefits for all New Zealanders, through generation better meeting peak demand and reducing costs.

9.24 Having considered submitters' feedback, on balance we hold to our original view that our proposals' benefits outweigh their costs, noting changes made responding to feedback. Importantly, our key change to allow dynamic or flexible limits as an alternative to the 10kW default gives distributors and consumers further options. It 'future proofs' the Code as this technology continues to evolve and mitigates the issue of later DG applicants encountering higher export limits.

9.25 Our overall assessment of costs and benefits is qualitative. In light of the complexity of variables and potential outcomes of increased DG exports, we consider a quantitative assessment impractical. Our estimate calculating that a 5kW export limit could cost residential solar owners approximately $4.23 million per year in lost revenue was a very limited indicative cost estimate.

[15] Source: https://www.emi.ea.govt.nz/Retail/Reports/GUEHMT?_rsdr=ALL&FuelType=solarplusbattery&_si=v|3

The amendment complies with section 32(1) of the Act

9.26 Section 32(1) of the Act holds that the Code may contain anything consistent with the Authority's objectives and necessary or desirable to promote the matters listed in section 32(1). As we put forward for consultation, the Authority considered the proposed amendments were consistent with its statutory objective under section 15(1) to promote competition, reliability, and efficiency for the long-term benefit of consumers. We considered the changes were necessary or desirable because they:

(a) promote competition by supporting growth of the DG industry and increasing consumer choice

(b) enhance reliability by enabling more DG investment to help manage peak loads and provide consumers with self-supply options

(c) improve efficiency by introducing a default export limit under Part 1A and mandating the latest inverter standards, creating more standardised and consistent processes across networks.

Submitter views

9.27 Most submitters, excepting distributors, agreed the Authority's proposed amendments complied with section 32(1) of the Act. Distributors were evenly divided on this. Comments from submitters in agreement included that the amendments:

(a) promote efficiency, competition, and network reliability, while providing clear processes and predictable outcomes that benefit consumers

(b) ensure that distributed generation can be safely and efficiently integrated into the network, support fair and transparent decisions by distributors, and align with the Authority's statutory objective.

9.28 One view expressed was that the amendments only partially complied. This view noted that these may promote competition and DG investment, but in constrained regions they may reduce reliability and efficiency and increase consumer costs.

9.29 Distributors considering the amendments did not comply with section 32(1) raised several points including:

(a) the BELAM-related dispute resolution process is

(b) the current version of the proposed amendments is not the best way to improve the reliable supply of electricity to consumers for all networks

(c) the Authority could require flexible export limits through its section 32(1)-related powers, as personal distributed generators are included as a regulatable class under section 7(1)(g) of the Act.

Authority response

9.30 The Authority notes that overall, submitters considered the amendments complied with section 32(1) of the Act. We consider the concerns from some distributors noted above are mitigated through changes to our proposals including:

(a) clarifying and narrowing the scope of the BELAM-related dispute resolution process

(b) allowing distributors to implement dynamic and flexible export limits as an alternative to the default 10kW export limit.

9.31 Consequently, we consider our decisions strengthen our original proposals' compliance with section 32(1) of the Act.

The Code amendments are preferable to other options

9.32 The Authority identified three options as alternatives to the proposals presented and indicated why these were not preferred.

Allowing industry to develop its own approaches to set more efficient export limits

9.33 We considered this option risked inconsistent practices across networks, potential inequities for distributed generation owners, and slower progress toward the Authority's objectives. Despite this, our proposal does allow distributors to set limits other than the default where justified.

Supporting industry to develop its own approaches through guidance

9.34 We considered that without enforceability, uptake of our guidance may vary, with benefits uneven across regions.

Choosing a default export limit other than 10 kW

9.35 With the average size of solar increasing, 10kW is a current Code value and a limit which captures almost all residential-scale installations. Lower limits would unnecessarily restrict DG benefits (for self-consumption and exports) and investment returns, while higher limits would increase technical risks and require more complex upgrades.

Submitter views

9.36 Most submitters agreed the Code amendments were preferable to other options, but some distributors had concerns. Submitter comments in agreement included that the amendments would create a clearer, fairer, and more consistent framework for all distributed generators, making installations easier. This was while supporting safe, reliable, and future-focused networks.

9.37 Some submitters noted caveats. Rewiring Aotearoa, for example, supported the amendments but advocated for more flexibility in export levels for Part 1A applications:

> "… *the 10kW default export limit should not necessarily create an upper limit if distribution networks analysis shows a higher default limit is possible without compromising network operations. Bespoke export limits for Part 1A should not only have scope to be lower than 10kW but also higher*."

9.38 Distributors' concerns centred around the issue that the Authority was proposing a default 10kW export limit rather than dynamic export limits, which were a more efficient longer-term solution.

Authority response

9.39 The Authority notes most submitters considered the proposed Code amendments preferable to other options but some, largely distributors, raised some concerns. We consider distributors' key concern is addressed by our change to allow distributors to implement dynamic or flexible export limits as an alternative to the default limit.

9.40 The issue Rewiring Aotearoa raises relates to the threshold in the Code for the streamlined Part 1A process which limits applications to 20kW. Distributors would be free to set export limits above 10kW, but they must go through the Part 2 application process. Future work in

our Network connections project will assess whether the capacity threshold for Part 1A applications should be raised.

10 Submitter comments on proposed Code drafting and Authority response

10.1 Only a small number of submitters commented on Code drafting, although this included about half of distributors that submitted. Table 5 below sets out submitters' proposals on our original Code drafting and the Authority's decisions. We do not include comment and decisions on changes to Code drafting that have been outlined earlier in this paper regarding specific proposals.

10.2 We also received some broader comments on Code drafting on connection-related issues but outside the scope of this export limits-related work. We will consider this as part of the ongoing Network connections project.

Table 5: Submitter comments on proposed Code drafting and Authority response

Code clause	Submitter proposal	Authority decision
Part 1 Preliminary provisions		
1.1 Interpretation	• Reference EEA Technical Guidelines as the place where methodologies, including the ELAM and BELAM, and detailed technical processes will be maintained.	• Disagree. We want the industry to have the flexibility to agree the BELAM and ELAM. It appears pragmatic to use the EEA Technical Guidelines but mandating this in the Code removes that flexibility at this stage of the process. If the industry cannot agree, the Authority can consider Code later.
Part 6 Connection of distributed generation		
6.3A(3)(a) and (5)(a)	• Refers to "… section of network that carries electricity from the ICP or group of ICPs to the network…" This could apply to any size 'section' of network, which is too vaguely phrased and could mean inconsistent application across distributors. Scope should be better defined.	• Disagree. This broad drafting is intended to give distributors flexibility to divide their network into appropriate sections that have voltages outside the tolerances for 10kW exports or other issues (and need lower limits). It is also designed to not unreasonably impose lower export limits on ICPs that are connected to parts of the network where voltage is within tolerances or other constraints are not present.
6.3A(4)	• Avoid embedding detailed technical parameters (such as 'Australia A' inverter settings) in Code text.	• Disagree. This is necessary for a limited period, so distributors adopt Australian voltage and frequency settings and impact is monitored.
6.3A(4)	• Ensure Code drafting allows for updating inverter settings as evidence of appropriate NZ settings evolves.	• Disagree. We need to review the Code to ensure the updated inverter performance standard is appropriate before amending the Code. This can be done as a minor and technical change.
6.3A(7)	• The punctuation at the end of each paragraph needs to be consistent. It must also be made clear whether the paragraphs are cumulative or alternatives.	• Agree. We have added a semi-colon and the word 'and' to paragraphs (a) and (b).
Schedule 6.1 Process for obtaining approval		
1E(1)	• Refers to the distributor assessing an application 'in good faith' which is unnecessary	• Disagree. Including 'acting in good faith' is a safeguard and reminder for both parties to exercise things like reasonableness,

Code clause	Submitter proposal	Authority decision
		cooperation to achieve statutory objectives, and transparency.
1E(1)(2)	• The Code drafting appears to require distributors to conduct a BELAM where a lower than 10kW export limit has been set due to an ELAM assessment, and a small-scale DG consumer requests it. This suggests that in effect ALL export limits set by way of ELAM assessment would then potentially be subject to a separate BELAM assessment, which is surely not the Authority's intent.	• Agree. We have altered drafting in (1) to replace reference to "… distributed generation that **does not comply with** the distributor's maximum export power threshold …" with "distributed generation that **has greater capacity than** …" This clarifies (1) as applying only to applications above distributors thresholds. We have further altered drafting in (2) to add "… any network study undertaken **for a Part 2 application** as part …" This clarifies that the BELAM applies only to DG above 10kW.
1E(2)	• Drafting should be clarified - refers to a network study being undertaken as part of an assessment under subclause (1)	• Agree. We have added "… **for a Part 2 application** under subclause (1)" to clarify and better link with subclause (1).
1E(2)	• Paragraph (b) does not follow appropriately from the opening words of the subclause (2)	• Disagree. We consider the narrative in (b) appropriately follows subclause (2) when read in its entirety.
1E(2)	• The punctuation at the end of each paragraph needs to be consistent. It must also be made clear whether the paragraphs are cumulative or alternatives.	• Agree. We have added a semi-colon and the word 'and' to paragraphs (a), (b) and (c).
NA	• Recommend referencing/encouraging localised energy storage to provide stability and ease concerns around the negative perceptions of distributed generation.	• Disagree. Reflecting policy on energy storage in the Code is out of scope. The Code should be technology neutral wherever appropriate to cater for evolution of the industry

11 Next steps

11.1 The Authority has amended the Code to give effect to this decision. We intend the Code amendment to be gazetted by mid-May 2026. Cabinet constitutional convention holds that secondary legislation should not come into force until at least 28 days after it is notified in the New Zealand Gazette.

11.2 As detailed in section 8 of this paper, 'Views on transitional arrangements', different provisions will come into force either 28 days, four months, or six months after gazetting.

11.3 Over this period, we expect the EEA and ENA to engage with distributors and other relevant stakeholders around industry's development of the ELAM and BELAM. These must be in place for distributors' use from six months after gazetting.

11.4 We also expect the EEA to continue its consideration of a process for distributors to monitor network impacts of adopting Australia A voltage response settings (see paragraphs 5.77-5.80). We understand the EEA is already in discussion with ENA and some distributors on this. We will allow industry a six-month monitoring period following gazetting, to come back to us with any significant concerns about the impact of the Australia A settings on networks.

11.5 Six months after gazetting, we will initiate a review of the inverter performance standard AS/NZS 4777.2:2020 with Standards New Zealand, either accepting the Australia A voltage response values (pending no significant concerns) or setting alternative New Zealand values (see paragraphs 5.81-5.83). The New Zealand frequency settings would also revert to the previous settings in the standard. We would then consider amending the Code to cite the revised standard. We expect the process of monitoring and standard review to take up to 18 months in total after gazetting Code changes.

11.6 Following the temporary adoption of Australia A frequency settings, the Authority will monitor capacity increase resulting from new South Island inverter installations and continue to liaise with the system operator, Transpower, on this issue (see paragraphs 5.84-5.87).

11.7 We will also monitor implementation outcomes and DG penetration levels to inform any future refinements or review of the regulatory framework, before high penetration levels have the potential to cause issues for networks.

12 Attachments

12.1 The following appendices are attached to this paper:

Appendix A Code amendment
Appendix B List of submitters
Appendix C Glossary of abbreviations and terms

Appendix A Code amendment

Note: The Authority acknowledges another amendment has been gazetted for Part 6 of the Code (https://www.ea.govt.nz/code-and-compliance/code-amendments/network-connections/) and becomes effective 1 December 2026. The below Code amendment is based on the Code as at 1 March 2026 and does not incorporate any changes from the above amendment. The Authority will ensure the 1 December 2026 Code amendment is adjusted to incorporate any of the below changes and has outlined the updates needed at the end of this appendix.

Key

Red underlined text indicates additions to the drafting from the version provided in the 8 October 2025 consultation.

~~Red strikethrough text~~ indicates deletions from the drafting from the version provided in the 8 October 2025 consultation.

Black underlined text indicates added text (as consulted on in the 8 October 2025 consultation).

~~Black strikethrough text~~ indicates deleted text (as consulted on in the 8 October 2025 consultation).

Part 1
Interpretation

bespoke export limits assessment methodology for distributors means a~~the~~ methodology that all **distributors** have jointly adopted for the purposes of Part 6 that, if made, **distributors** must use to perform **network** studies that determine **maximum export power**, inverter settings, or other conditions that will apply to an **ICP** that is the subject of an application to connect **distributed generation**

dynamic export limit means an export limit for **distributed generation** under Part 6 that allows at least the **maximum export power** threshold when there is no **export congestion** and remotely adjusts the export limit of the smart inverter in real-time to continuously respond to **network export congestion**

export limits assessment methodology for distributors means ~~the~~ a methodology that all **distributors** have jointly adopted for the purposes of Part 6 that, if made, **distributors** must use to perform **network** studies that determine the **maximum export power** threshold, or inverter settings, that apply to an **ICP** or group of **ICPs** connected to a section of **network**, whether or not an application to connect **distributed generation** has been received for that **ICP** or one of those **ICPs**

flexible export limit means an export limit for **distributed generation** under Part 6 that allows at least the **maximum export power** threshold when there is no **export congestion** and adjusts the export limit based on predefined schedules, forecasts, or operating scenarios that are programmed into the inverter or remotely communicated to the smart inverter

Part 6
Connection of distributed generation

Contents

…

…

6.3 Distributors must make information publicly available

…

(2) Each **distributor** must make publicly available, free of charge, from its office and Internet site,—

…

(dc) ~~until 1 September 2026,~~ the **maximum export power** threshold and the **export limits assessment methodology for distributors** and the **bespoke export limits assessment methodology for distributors** used to determine that threshold, for locations at which the **distributor** has set a **maximum export power** threshold ~~for applications under Part 1A of Schedule 6.1~~; and

…

6.3A Limits on maximum export power and installed generation

(1) A **distributor** must not set a limit on the **nameplate capacity** of **distributed generation** that may be installed at an **ICP** for applications made under Part 1 or Part 1A.

(2) A **distributor** may set a limit on the **maximum export power** that may be injected into the **network** from an **ICP** (the '**maximum export power** threshold') for applications made under Part 1A, provided the **maximum export power** threshold is not set lower than 10kW except in accordance with subclause (3).

(3) A **distributor** may set a limit on the **maximum export power** threshold that applies to an **ICP** or group of **ICPs** of lower than 10kW provided the **distributor** has undertaken a **network** study that—

(a) shows a lower **maximum export power** threshold is necessary to maintain voltage within the allowable tolerances or **network** safety, including any issues reasonably likely to affect power quality or reliability, such as thermal constraints, in the section of **network** that carries **electricity** from the **ICP** or group of **ICPs** to the **network**; and

(b) only takes into account **distributed generation** that is connected to, and applications that are being assessed to connect **distributed generation** to, the section of **network** that carries **electricity** from the **ICP** or group of **ICPs** to the **network**; and

(c) if the lower **maximum export power** threshold is part of a **dynamic export limit** or a **flexible export limit**—

(i) the lower **maximum export power** threshold is only active during the time periods when the **network** study has identified the lower **maximum export power** threshold is necessary; and

(ii) the **dynamic export limit** or a **flexible export limit** does not operate when the **network** is not constrained.

~~(4) From xx (*date four months after gazetting*) subject to subclause (5), a **distributor** must require a **distributed generator** that injects **electricity** at low voltage to use an inverter that is compliant with, and applies the "Australia A" inverter settings specified in, AS/NZS477.2:2020 incorporating Amendments No. 1 and 2.~~

~~(5) A **distributor** may specify different inverter settings in its **connection and operating standards** if—~~

~~(a) the **distributor** has undertaken a **network** study that shows different settings are necessary to maintain voltage within the allowable tolerances and/or **network** safety, including relevant issues affecting power quality or reliability, such as thermal constraints, in the section of **network** for or an **ICP** or group of **ICPs**; and~~

~~(b) any alternative inverter settings are consistent with the "allowed range" in Tables 3.6, 3.7, 3.8, and 4.3 of AS/NZS 4777.2:2020 incorporating Amendments No. 1 and 2.~~

(~~6~~4) From 11 November 2026 ~~xx (*date six months after gazetting*)~~ any **network** study undertaken under subclauses (3) ~~or (5)~~ must use the **export limits assessment methodology for distributors**.

(~~7~~5) The **distributor** must—

(a) **publish** any **network** study undertaken under subclauses (3) ~~or (5)~~

(b) **publish** easily accessible lists or maps of areas on the **network** where the lower **maximum export power** threshold or different settings applies.

(c) repeat the **network** study where there has been a change on the **network** likely to alter the outcome of **network** study.

~~(8) Where a **distributor** undertakes a **network** study to determine a **maximum export power** threshold under subclause (3), the **distributor's** Chief Executive Officer, or a person holding an equivalent position, must **publish** a signed statement that the **maximum export power** threshold has been determined according to the requirements in Part 6 and the **export limits assessment methodology for distributors**.~~

6.3B Requirements for inverters

(4~~1~~) From 11 September 2026 ~~xx (*date four months after gazetting*)~~ subject to subclause (~~5~~2), a **distributor** must require a **distributed generator** that injects **electricity** at low voltage to use an inverter that is compliant with, and applies the "Australia A" inverter settings specified in, AS/NZS477.2:2020 incorporating Amendments No. 1 and 2.

(~~5~~2) A **distributor** may specify different inverter settings to those required in subclause (1) in its **connection and operating standards** if—

(a) the **distributor** has undertaken a **network** study that shows different settings are necessary to maintain voltage within the allowable tolerances and/or **network** safety, including any issues reasonably likely to affect power quality or reliability, such as thermal constraints, in the section of **network** for or an **ICP** or group of **ICPs**; and

(b) any alternative inverter settings are consistent with the "allowed range" in Tables 3.6, 3.7, 3.8, and 4.3 of AS/NZS 4777.2:2020 incorporating Amendments No. 1 and 2.

(3) From 11 November 2026 any **network** study undertaken under subclause (2) must use the **export limits assessment methodology for distributors**

(4) The **distributor** must—

(a) **publish** any **network** study undertaken under subclause (2); and

(b) repeat the **network** study where there has been a change on the **network** likely to alter the outcome of **network** study

6.4 Process for obtaining approval

(1) Schedule 6.1 applies if a **distributed generator** wishes to—

…

(d) change the **nameplate capacity, maximum export power,** or fuel type of connected **distributed generation**.

…

Schedule 6.1 cl 6.4

Process for obtaining approval

…

1D When application may be made under Part 1A

(1) A **distributed generator** may elect to apply to a **distributor** under Part 1A instead of Part 1 if the **distributed generation** to which the application relates—

(a) is designed and installed in accordance with AS/NZS 4777.1:~~2016~~2024; and

(b) incorporates an inverter that—

(i) has been tested and issued a Declaration of Conformity with AS/NZS 4777.2:2020 incorporating Amendments No. 1 and 2 by a laboratory with accreditation issued or recognised by International Accreditation New Zealand; and

(ii) has settings that meet the **distributor's connection and operation standards**

(c) will inject **electricity** less than or equal to the **maximum export power** threshold set by the **distributor** in clause 6.3A(2).

(2) ~~Until 1 September 2026, a~~A **distributed generator** may only elect to apply to a **distributor** under Part 1A instead of Part 1, if the **distributed generation** to which the application relates has, in addition to the requirements in subclause (1)—

(a) a volt-watt response mode;

(b) a volt-var response mode;

(c) control settings and volt response mode settings that comply with clause 6.3~~A~~B(41) or meet the **distributor's ~~connection and operation standards~~** inverter settings specified in accordance with clause 6.3~~A~~B (~~5~~2); and

(d) a **maximum export power** limit at the **ICP** of the **distributed generator** that does not exceed the **maximum export power** threshold, if any, specified by the **distributor** ~~in its connection and operation standards~~.

1E Applications that do not comply with distributor thresholds or inverter settings

(1) Despite clause 6.3A or 6.3B, a **distributed generator** may submit an application to connect **distributed generation** that ~~does not comply with~~ has greater capacity than the **distributor's maximum export power** threshold or has different inverter settings than those specified in accordance with clause 6.3B(2), and the **distributor** must assess that application in good faith, under~~:~~—

(a) Part 1 or Part 2 of Schedule 6.1 for **distributed generation** greater than the **maximum export power** threshold; or

(b) Part 1 or Part 2 of Schedule 6.1 for **distributed generation** using different inverter settings.

(2) From 11 November 2026 ~~xx (date four six months after gazetting)~~, any **network** study undertaken for a Part 2 application as part of the assessment under subclause (1)—

(a) must use the **bespoke export limits assessment methodology for distributors**; and

(b) must, if it contains an analysis which deviates from the **bespoke export limits assessment methodology for distributors**, include the reasons for the deviation; and ~~where the analysis performed in the **network** study has deviated from the **bespoke export limits assessment methodology for distributors**, the **distributor** must provide a reason to the **distributed generator**.~~

(c) must be provided to the **distributed generator** before determining the application

(d) must be **published** by the **distributor** unless the **distributed generator** does not give consent to **publish**.

(3) Unless the **distributed generator** agrees otherwise, where practicable the **distributor** must provide the **distributed generator** with the following:

(a) alternative export limits:

(b) the conditions the **distributed generator** must meet in order for the **distributor** to approve those alternative export limits:

(c) the associated costs if the **distributed generator** chooses an alternative export limit.

(~~3~~4) If an application is approved, the **distributor** will adjust the **maximum export power** threshold for that **ICP** to the new **maximum export power** threshold determined during the application process.

1~~G~~F Distributed generator may dispute results of network study in certain circumstances

(1) A **distributed generator** may dispute ~~the results of the **network** study and~~ any limit set by a **distributor** on **maximum export power** or inverter settings that operate to limit **maximum export power**, or associated conditions set by ~~a~~the **distributor** arising from a **network** study using the **bespoke export limits assessment methodology for distributors** by providing written notice of the dispute to the **distributor**.

(2) A **distributed generator** may not dispute the **bespoke export limits assessment methodology for distributors** itself.

(3) A dispute may only be raised up to 30 days after the **distributor** has notified the **distributed generator** of the results or the limit on **maximum export power** or inverter settings that operate to limit **maximum export power** set by a **distributor** or associated conditions set by the **distributor**.

(~~2~~4) If a **distributed generator** notifies the **distributor** of a dispute under subclause (1), the **distributor** and the **distributed generator** ("the parties")—

(a) must attempt to resolve the dispute in good faith and without unreasonable delay; and

(b) may escalate the dispute to their chief executive officers, or a person holding the equivalent position, if the dispute cannot be resolved in good faith and without unreasonable delay; and

(c) the chief executive officer~~s~~, or person holding the equivalent position, may—

(i) refer the dispute to mediation with costs to lie where they fall; and

(ii) if the parties cannot agree to a mediator within 5 **business days** of referring the dispute to mediation, the parties must submit a request to AMINZ (or its replacement organisation) to select a mediator and determine the mediator's fee: and

(d) if the dispute cannot be resolved the **distributor** and the **distributed generator** must—

(i) refer the dispute to arbitration under the Arbitration Act 1996; and

(ii) if the parties cannot agree to an arbitrator within 5 **business days** of referring the dispute to arbitration, the parties must submit a request to AMINZ (or its replacement organisation) to select an arbitrator and determine the arbitrator's fee.

(5) If the parties refer the dispute to arbitration, either party may commission an independent engineering review of the issues being disputed in which case—

(a) the review must be conducted by a suitable engineering consultant nominated by the Electricity Engineers Association (or its replacement organisation); and

(b_ the party commissioning the review must pay the cost of the review, however the final allocation of the costs between the parties will be determined by the arbitrator.

...

Part 1
Applications for distributed generation 10 kW or less in total

…

2 Applications under this Part of this Schedule

…

(3) The information may include the following:

…

(aa) whether the application is to—
(i) connect **distributed generation**; or
(ii) continue an existing connection of **distributed generation** that is connected in accordance with a connection contract if the connection contract—
(A) is in force and the **distributed generator** wishes to extend the term of the connection contract; or
(B) has expired; or
(iii) continue an existing connection of **distributed generation** that is connected
(iv) change the **nameplate capacity, maximum export power,** or fuel type of connected **distributed generation**:

(b) evidence of the **nameplate capacity** or **maximum export power,** that the **distributed generation** will have, or other suitable evidence that the **distributed generation** is or will only be capable of generating **electricity** at a rate of 10 kW or less:

(ba) if the application is to change the **nameplate capacity, maximum export power,** or fuel type of connected **distributed generation**—
(i) the **nameplate capacity** and **maximum export power** that the **distributed generation** will have after the change; and

(ii) the aggregate **nameplate capacity** that all **distributed generation** that is connected at the **point of connection** at which the **distributed generation** is connected will have after the change; and

(iii) the fuel type that the **distributed generation** will have after the change:

…

Part 1A

Applications for distributed generation of 10 kW or less in total in specified circumstances

…

9B Application for distributed generation of 10 kW or less in total in specified circumstances

(1) A **distributed generator's** application to a **distributor** must specify which of the following circumstances applies:

…

(d) the **distributed generator** wishes to change the **nameplate capacity**, **maximum export power,** or fuel type of connected **distributed generation**.

…

(2) An application must include the following:

…

(f) if the inverter is not included on the **distributor's** list of approved inverters, a copy of the AS/NZS 4777.2:2020 incorporating Amendments No.1 and 2 Declaration of Conformity certificate for the inverter:

…

(2A) ~~Until 1 September 2026, a~~An application must also include—

(a) confirmation ~~as to whether~~ the inverter conforms with the ~~control~~ inverter settings ~~and volt response mode settings~~ specified in clause 6.3B(1) or 6.3B(2)~~the **distributor's connection and operation standards**~~;

(b) confirmation that the **distributed generation** has a **maximum export power** limit that does not exceed the **maximum export power** threshold, if any, specified by the **distributor** ~~in its **connection and operation standards**~~; and

(c) the **maximum export power** of the **distributed generation**.

…

…

Consequential edits to Part 6 of the Electricity Industry Participation Code that come into force on 1 December 2026

Part 6
Connection of distributed generation

Contents

…

…

6.3 Distributors must ~~publish information that is not confidential~~make information publicly available

…

(2) Each **distributor** must **publish –**

…

(dc) ~~until 1 September 2026,~~ the **maximum export power threshold** and the ~~methodology~~**export limits assessment methodology for distributors** and the **bespoke export limits assessment methodology for distributors** used to determine that threshold, for locations at which the **distributor** has set a **maximum export power threshold**; and ~~for applications under Part 1A of Schedule 6.1~~

Schedule 6.1 cl 6.4

4 When application may be made under Process 1A

(1) A **distributed generator** may elect to apply to a **distributor** under **Process 1A** instead of **Process 1** if the **distributed generation** to which the application relates—

(a) is designed and installed in accordance with ~~AS/NZS 4777.1:2016~~ AS/NZS 4777.1:2024; and

(b) incorporates an inverter that—

(i) has been tested and issued a Declaration of Conformity with AS/NZS 4777.2:2020 incorporating Amendments No. 1 and 2 by a laboratory with accreditation issued or recognised by International Accreditation New Zealand; and

(ii) has settings that meet the **distributor's connection and operation standards**~~.~~; and

(c) will inject **electricity** less than or equal to the **maximum export power** threshold set by the **distributor** in clause 6.3A(2)

(2) ~~Until 1 September 2026, a~~ A **distributed generator** may only elect to apply to a **distributor** under **Process 1A** instead of **Process 1**, if the **distributed generation** to which the application relates has, in addition to the requirements in subclause (1)—

(a) a volt-watt response mode; and

(b) a volt-var response mode; and

(c) control settings and volt response mode settings that comply with clause 6.3B(1) or meet the **distributor's** ~~**connection and operation standards**~~ inverter settings specified in accordance with clause 6.3B(2); and

(d) a **maximum export power limit** at the **ICP** of the **distributed generator** that does not exceed the **maximum export power** threshold, if any, specified by the **distributor** ~~**in its connection and operation standards**~~.

4A Applications that do not comply with distributor thresholds or inverter settings

(1) Despite clause 6.3A or 6.3B, a **distributed generator** may submit an application to connect **distributed generation** that has greater capacity than the **distributor's maximum export power** threshold or has different inverter settings than those specified in accordance with clause 6.3B(2), and the **distributor** must assess that application in good faith, under—

(a) Process 1 of Schedule 6.1 for **distributed generation** greater than the **maximum export power** threshold; or

(b) Process 1 or Process 2 of Schedule 6.1 for **distributed generation** using different inverter settings.

(2) From 11 November 2026, any **network** study undertaken for a Process 2 application as part of the assessment under subclause (1)—

(a) must use the **bespoke export limits assessment methodology for distributors**; and

(b) must, if it contains any analysis which deviates from the **bespoke export limits assessment methodology for distributors**, include the reasons for the deviation; and

(c) must be provided to the **distributed generator** before determining the application; and

(d) must be **published** by the **distributor** unless the **distributed generator** does not give consent to **publish**.

(3) Unless the **distributed generator** agrees otherwise, where practicable, the **distributor** must provide the **distributed generator** with the following:

(a) alternative export limits:

(b) the conditions the **distributed generator** must meet in order for the **distributor** to approve those alternative export limits:

(c) the associated costs if the **distributed generator** chooses an alternative export limit.

(4) If an application is approved, the **distributor** will adjust the **maximum export power** threshold for that **ICP** to the new **maximum export power** threshold determined during the application process.

4B Distributed generator may dispute results of network study in certain circumstances

(1) A **distributed generator** may dispute any limit set by a **distributor** on **maximum export power** or inverter settings that operate to limit **maximum export power**, or associated conditions set by the **distributor**, arising from a **network** study using the **bespoke export limits assessment methodology for distributors** by providing written notice of the dispute to the **distributor**.

(2) A **distributed generator** may not dispute the **bespoke export limits assessment methodology for distributors** itself.

(3) A dispute may only be raised up to 30 days after the **distributor** has notified the **distributed generator** of the results or the limit on **maximum export power** or inverter settings that operate to limit **maximum export power** set by a **distributor** or associated conditions set by the **distributor**.

(4) If a **distributed generator** notifies the **distributor** of a dispute under subclause (1), the **distributor** and the **distributed generator** ("the parties")—

(a) must attempt to resolve the dispute in good faith and without unreasonable delay; and

(b) may escalate the dispute to their chief executive officers, or a person holding the equivalent position, if the dispute cannot be resolved in good faith and without unreasonable delay; and

(c) the chief executive officer, or person holding the equivalent position, may—

(i) refer the dispute to mediation with costs to lie where they fall; and

(ii) if the parties cannot agree to a mediator within 5 **business days** of referring the dispute to mediation, the parties must submit a request to AMINZ (or its replacement organisation) to select a mediator and determine the mediator's fee; and

(d) if the dispute cannot be resolved the **distributor** and the **distributed generator** must—

(i) refer the dispute to arbitration under the Arbitration Act 1996; and

(ii) if the parties cannot agree to an arbitrator within 5 **business days** of referring the dispute to arbitration, the parties must submit a request to AMINZ (or its replacement organisation) to select an arbitrator and determine the arbitrator's fee.

(5) If the parties refer the dispute to arbitration, either party may commission an independent engineering review of the issues being disputed, in which case—

(a) the review must be conducted by a suitable engineering consultant nominated by the Electricity Engineers Association (or its replacement organisation); and

(b) the party commissioning the review must initially pay the cost of the review, with the final allocation of the costs between the parties determined by the arbitrator.

Appendix 1
Process 1: Applications for distributed generation with maximum export power of 10 kW or less in total

(2) Application for distributed generation with maximum export power of 10kW or less in total

…

(2) The information required by subclause (1)(b) includes the following:

(a) the full name and address of the **distributed generator** and the contact details of a person that the **distributor** may contact regarding the **distributed generation**:

(b) whether the application is to—

…

(iv) change the **nameplate capacity** or **maximum export power** or fuel type of connected **distributed generation**:

(c) evidence of the **nameplate capacity** or **maximum export power** that the **distributed generation** will have, or other suitable evidence that the **distributed generation** is or will only be capable of generating **electricity** at a rate of 10 kW or less:

(d) if the application is to change the **nameplate capacity** or **maximum export power** or fuel type of connected **distributed generation**—

(i) the **nameplate capacity** or **maximum export power** that the **distributed generation** will have after the change; and

(ii) the aggregate **nameplate capacity** or **maximum export power** that all **distributed generation** that is connected at the **point of connection** at which the **distributed generation** is connected will have after the change; and

(iii) the fuel type that the distributed generation will have after the change:

Appendix 1A
Process 1A: Applications for distributed generation with maximum export power of 10 kW or less in total in specified circumstances

…

2 Application for distributed generation with maximum export power of 10 kW or less in total in specified circumstances

(1) An application to a **distributor** must use the application form provided by the distributor that is publicly available under clause 6.3(2)(a), and specify which of the following circumstances applies:

…

(d) the **distributed generator** wishes to change the **nameplate capacity** or **maximum export power** or fuel type of connected **distributed generation**.

(2) An application made under this clause must include the following:

…

(f) if the inverter is not included on the distributor's list of approved inverters, a copy of the AS/NZS 4777.2:2020 incorporating Amendments No. 1 and 2 Declaration of Conformity certificate for the inverter:

(3) ~~Until 1 September 2026, a~~An application must also include—

(a) confirmation ~~as to whether~~ the inverter conforms with the ~~control settings and volt response mode settings specified in the distributor's connection and operation standards~~ inverter settings specified in clause 6.3B(1) or 6.3B(2); and

(b) confirmation that the **distributed generation** has a **maximum export power** limit that does not exceed the **maximum export power** threshold, if any, specified by the **distributor** ~~in its connection and operation standards~~; and

(c) the **maximum export power** of the **distributed generation**.

Appendix B List of submitters

Distributors

Aurora Energy
Buller Electricity
Counties Energy
Marlborough Lines
Orion
Powerco
PowerNet
Top Energy
Unison/Centralines
Vector
WEL Networks
Wellington Electricity
Westpower

Industry representative organisations

Electricity Engineers' Association (EEA)
Electricity Networks Aotearoa (ENA)
Energy Retailers and Generators' Association of New Zealand (ERGANZ)
Independent Electricity Generators' Association (IEGA)
Sustainable Energy Association of New Zealand (SEANZ)

Community organisations and advocacy groups

Castle Hill Community Energy Project
Climate Justice Taranaki
Drive Electric
Electrify Hawkes Bay
Electrify Kapiti
Electrify the Hutt
Electrify Wairarapa
Electrify Wanaka
Hauraki Resilient Communities Trust
Low Carbon Kapiti
Lyttleton Energy Transition Society
Rewiring Aotearoa

Businesses

Compare Power Companies
Dunedin Airport
Future Energy
Grid Breaker Ltd
Retyna
Solayer New Zealand
Supa Energy

Individuals[16]

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Andrew Broxholme
Andrew Heal
Andy Gow
Anonymous 1
Anonymous 2
Ben Statham
Bevan Jenkins
Blaise St-Laurent
Brendon Harvey
Bruce Gully
Chris Tuite
Chriostopher Leigh
Glenn Bosworth
Graeme Weston
Graham Eagles and Maryanne Smyth
Grant Cole
Hazel Mattewson
Hiren Patel
Ian Bell
James Scott
James Siddle
Jeremy Mills-Houlihan
John Mansell
Jude Sanson
Juliet Tainui-Hernandez
Michael Anderson
Milan Radojevic
Nathan Collis
Nathan Surendran
Neil Pride
Nick Biland
Nu'uali'itia Andrew Redwood
Paul O'Donohue
Philip D'Ath
Ron McCaw
Rob van Duivenboden
Robert Bogers
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[16] Submissions from 44 of the 80 individuals used the Rewiring Aotearoa submission template to some degree.

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Craig Ward	Kristin D'Agostino	Simon Vincent
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Daniel Cull	Liam Sergeant	Stuart Wakefield
Daniel Hill	Lisa Dohig	Tarun Sharma
Derek Chapman	Lynne and Brian Tomas	Tim – Avocado Tours
Dylan Romanos	Martin Kane	Tim Hawker
Eddie van Uden	Martino Di Marco	Tony Daamen
Fiona Bretherton	Mat Whinney	Ulrich Speidel
G Winder	Matt Dempsey	Uttam Floray
Gajan Shivanandan	Matt Savage	Warrick Isaachsen
Gaynor Hamill	Matthew Oldham	Wayne Ridgway
Gill Sanson	Merryn Hedley and Terry Webb	

Appendix C Glossary of abbreviations and terms

Term	Definition
AS/NZS 4777.1	Australian/New Zealand inverter installation standard.
AS/NZS 4777.2	Australian/New Zealand inverter performance standard.
Authority	Electricity Authority Te Mana Hiko.
Act	Electricity Industry Act 2010.
Bespoke export limits	Customised export limits and inverter settings for individual DG connections.
BELAM	Bespoke Export Limits Assessment Methodology – industry methodology for DG >10kW.
Code	Electricity Industry Participation Code 2010.
Consumer Data Right	A legal framework allowing consumers to securely access, share, and control their personal data with trusted third parties through regulated digital systems.
DG (Distributed generation)	Electricity generated at an ICP for local use or injection into networks.
Dynamic export limits	Export limits that adjust continuously to 'real-time' network conditions.
ELAM	Export Limits Assessment Methodology – industry methodology for DG <10kW.
Export limits	The maximum amounts of electricity a DG owner is permitted to supply (export) to the network at any given time
Flexible export limits	Export limits that adjust periodically based on predefined schedules or scenarios.
ICP (Installation control point)	Point where a consumer or generator connects to a network.
Inverter	Device that converts DC electricity into AC for network use.
kW (Kilowatt)	Unit of real power equal to 1,000 watts.
Maximum export power threshold	Export limits as expressed in the Code.
Part 1A	Streamlined Code process for DG ≤10 kW that meet simple criteria.
Part 1	Comprehensive Code process for DG ≤10 kW not meeting Part 1A criteria.
Part 2	Code process for larger DG >10 kW.
Static export limits	Fixed export 'caps' not dependent on network conditions.