

Ref: 25042

19 November 2025

Electricity Authority | Te Mana Hiko

By email to: connection.feedback@ea.govt.nz

Tēnā koutou



SUBMISSION ON MAXIMISING BENEFITS FROM LOCAL GENERATION

Unison Networks Limited (Unison) and Centralines Limited (Centralines) are consumer-owned electricity distribution businesses serving communities across Hawke's Bay, Taupō, Rotorua, and Central Hawke's Bay. We welcome the opportunity to provide feedback on the Electricity Authority's consultation paper: *Maximising Benefits from Local Generation*.

As trust-owned entities, our purpose is to deliver enduring value to the communities we serve. We focus on providing reliable, efficient, and future-ready network services, balancing affordability with prudent investment. These priorities reflect our commitment to consumer interests, regulatory compliance, and supporting New Zealand's transition to a low-carbon energy future.

Executive Summary

Unison and Centralines support the Electricity Authority's initiative to maximise benefits from local generation. Our approach is guided by three principles:

- **Consumer focus:** ensuring affordability and reliability for the communities we serve.
- **Regulatory compliance:** meeting obligations while enabling innovation.
- **Future readiness:** investing prudently to support New Zealand's low-carbon transition.

Aligned with these principles, Unison and Centralines actively support customer choice and the connection and integration of consumer energy resources (CER), including small-scale distributed generation (SSDG), to promote accessible and affordable energy. This remains a key focus area for us. We also support the proposed amendments to the Code to clarify and update standards and processes for SSDG connections, recognising the long-term benefits these changes will deliver for consumers.

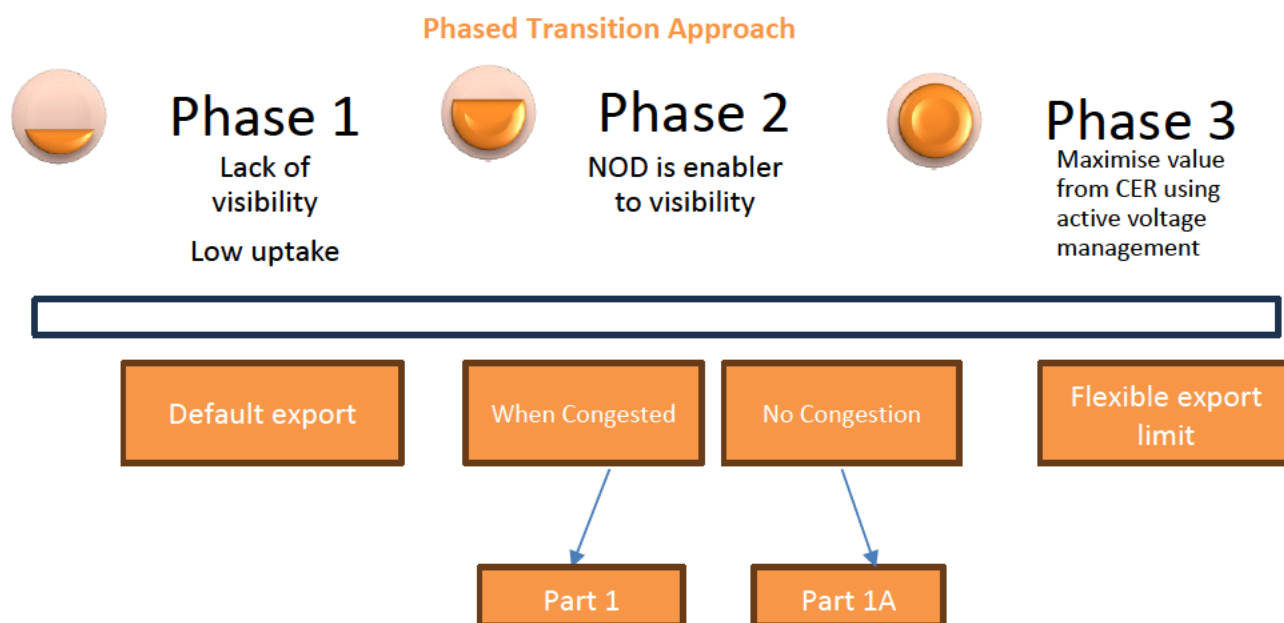
While we support increasing export limits to give consumers more choice and flexibility, we believe it's important to consider some potential unintended consequences. If the maximum export limit becomes the default, there's a risk that some sales organisations may encourage consumers to buy larger solar or battery systems than they actually need simply to match the new limit. For most households, solar and battery systems are a way

to protect themselves against rising energy prices, but choosing the right system is a complex decision that depends on individual energy use and circumstances.

Currently, there's limited independent information or guidance available to help consumers make informed choices about small-scale distributed generation (SSDG). This could leave people exposed to solutions that aren't well matched to their needs, potentially leading to higher costs or less benefit than expected. By comparison, industries like financial services and insurance have clear consumer protection measures in place.

We believe consumers should be supported with clear, accessible information and protections to ensure their interests are met. In addition to existing resources like EECA's information and the Gen-less calculator, and the light-touch codes of conduct already in place, we recommend further promotion of independent tools and guidelines. Alternatively, the industry could work together to develop a comprehensive, nationwide code of practice for the sale and installation of SSDG. This would help ensure consumers receive trustworthy advice and solutions that are right for them.

Looking ahead, we expect that in future limits will become dynamic up to the 10-kW maximum export per phase. As distribution system operation capabilities become necessary and the associated capabilities are deployed, these dynamic limits or 'Flexible Export Limits' will in future be set based on real-time or forecast conditions on the network including congestion. DER and CER including SSDG will be required to respond to these dynamic limits as communicated by the Distribution System Operator (DSO).



We support the primary proposals to:

- Introduce a 10-kW default export limit aligned with residential solar PV systems to support consistency and maximise overall system value for consumers, communities, and networks. It would be prudent to validate this threshold through

empirical assessments before adopting it as a fixed default. In practice, this cap primarily affects low-voltage single-phase customers, whereas multiple-phase connections are not exposed to the same constraints.

- Remove arbitrary restrictions on installed distributed generation (DG) capacity, enabling consumers and communities to design systems that best meet their energy needs and resilience goals, provided they operate within the network's published allocation methodology. This approach encourages innovation, supports community energy participation, and ensures that investment decisions reflect real network conditions rather than blanket rules.
- Adopt AS/NZS 4777.2:2020 (including Amendments 1 & 2) to ensure all new DG connections contribute to system stability through voltage and frequency support, fault ride-through capability, and other critical inverter functions. The standards should also explicitly require power-quality modes covering harmonics and flicker limits, reactive power (volt-var and volt-watt) capability, and related services as prescribed in AS/NZS 4777.1 and associated parts. For completeness, the current edition of AS/NZS 4777.1 should also be adopted to provide clear, consistent, and enforceable performance expectations across all DG connections.
- Improve transparency and consumer access to information by requiring distributors to publish ELAM/BELAM methodologies, undertake network assessments, and make hosting capacity maps publicly available. This information should be supported by plain-language guidance, online tools, calculators, and APIs providing real-time insights, as well as clear and accessible dispute resolution pathways. This will empower consumers and developers to make informed choices and improve trust in network decision-making.
- Support the proposed transitional timeframes, accompanied by active monitoring and interim assistance where needed, with progress regularly reported against published milestones to maintain accountability and confidence in the implementation process.

Collectively, these measures can improve the fairness and transparency of distributed generation access, enhance billing accuracy and settlement processes, strengthen demand response price signals, and better align wholesale, retail, and distribution outcomes. Together, they will advance the Authority's statutory objective to promote competition, reliability, and efficiency in the long-term interests of all New Zealand consumers.

1. Consumer Outcomes and Equity

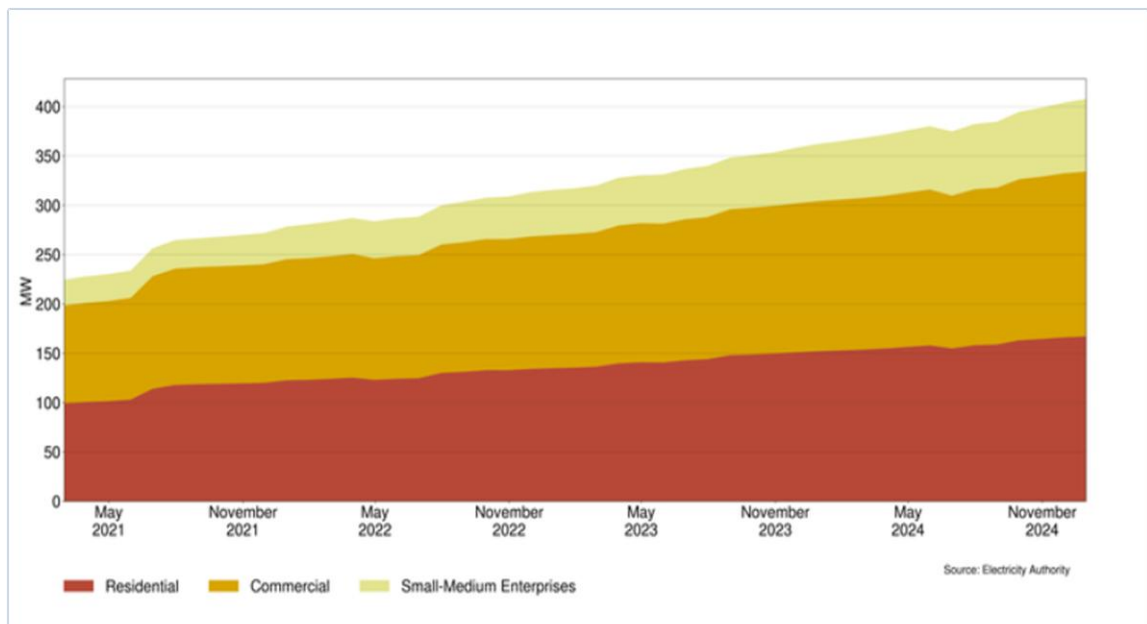
We support the Authority's focus on strengthening consumer outcomes and ensuring a fair, efficient transition as distributed generation continues to grow. The proposals are well-aligned with this direction and are likely to deliver meaningful benefits across the system:

- *Unlocking system-wide value:* Higher export limits, modern inverter standards, and transparent, standardised methodologies have strong potential to reduce overall generation and network costs, support emissions reduction, and improve system resilience.

- *Enhancing returns for DG owners:* Increasing the default export limit to 10 kW will enable consumers to make better use of their investment in solar and storage, encouraging continued uptake of small-scale renewable generation.
- *Delivering benefits for all consumers:* Greater local generation can defer or reduce the scale of network upgrades, lower reliance on higher-cost generation, and contribute to downward pressure on electricity prices benefits that extend to all consumers, not only those with DG.
- *Supporting equity and consistent access:* Clear, proportionate, and transparent processes help ensure that all consumers including those who cannot invest in DG share in the benefits of a more distributed and flexible energy system. Removing unnecessary barriers also promotes nationwide consistency and reduces regional disparities.

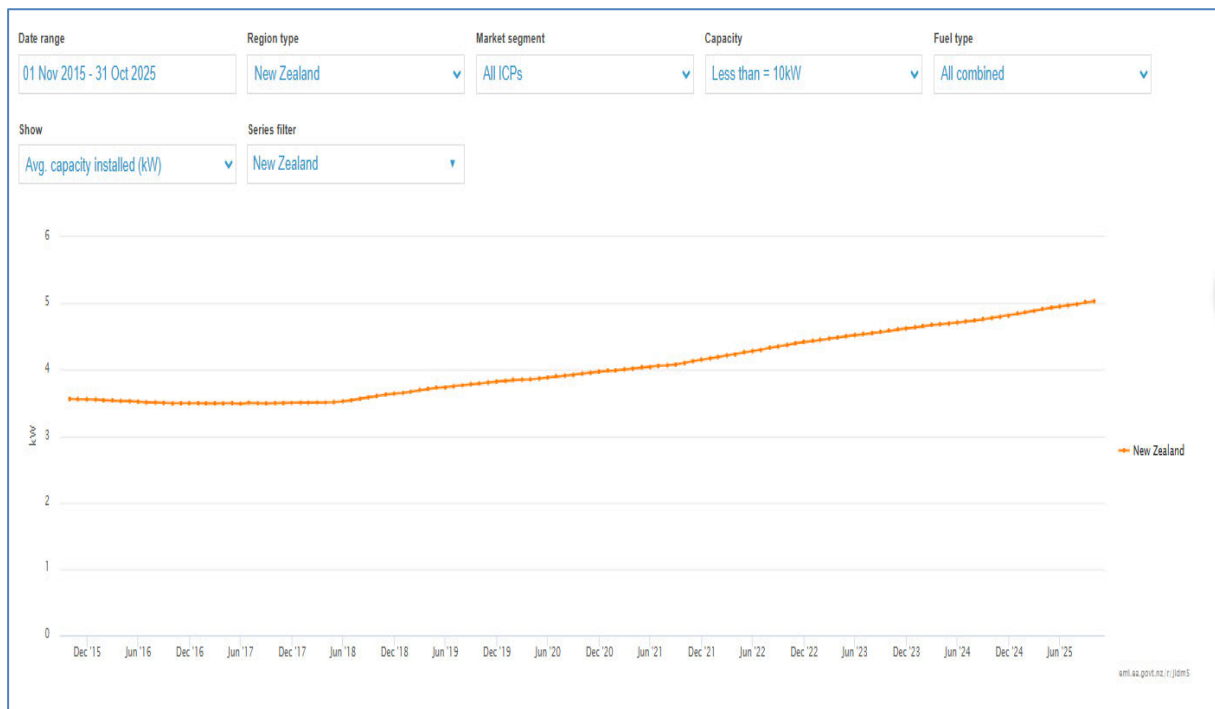
We also note that solar uptake on our network continues to steadily increase. This also appears to be the situation on the majority of networks based on EMI statistics¹. These statistics also show an increase in the average installation size for SSDG along with increasing number of battery systems which can not only provide consumers the opportunity to maximise benefits from producing and consuming energy but also has the potential to reduce peak demand which can benefit the wider electricity system. Given this evidence, we believe there is not a significant issue or impediment to consumers accessing the benefits of SSDG at present but acknowledge the importance of having clear standards and regulation to anticipate and address potential future barriers or issues that may arise if there are inconsistent, or arbitrary approaches imposed in the absence of suitable regulation.

Aotearoa's Solar Distributed Energy Capacity



¹ [New highs being hit in solar generation | Electricity Authority](#)

Aotearoa's Average installed capacity (kW) over 10years²



Trend in Average Installed Capacity of Small-Scale Distributed Generation (SSDG) in New Zealand (2015–2025)

The chart above shows the average installed capacity (in kW) of SSDG systems (less than or equal to 10 kW) across New Zealand from November 2015 to October 2025. Over this ten-year period, there is a clear and consistent upward trend: the average system size has increased from just above 3.5 kW in late 2015 to over 5 kW by late 2025.

This steady growth reflects several important factors:

- **Consumer Demand:** Households and businesses are increasingly choosing larger solar and battery systems to maximise self-consumption and hedge against rising energy costs.
- **Technology Advancements:** Improvements in solar panel efficiency and reductions in cost have made larger systems more accessible.
- **Regulatory and Market Signals:** Anticipation of higher export limits and evolving market settings have encouraged consumers to invest in systems that can deliver greater benefits.

The trend also highlights the importance of ensuring that regulatory settings, such as export limits and connection processes, keep pace with consumer preferences and technological change. As average system sizes continue to grow, clear standards and

² [Electricity Authority - EMI \(market statistics and tools\)](#)

transparent processes will be essential to support consumer choice, network reliability, and the efficient integration of distributed energy resources.

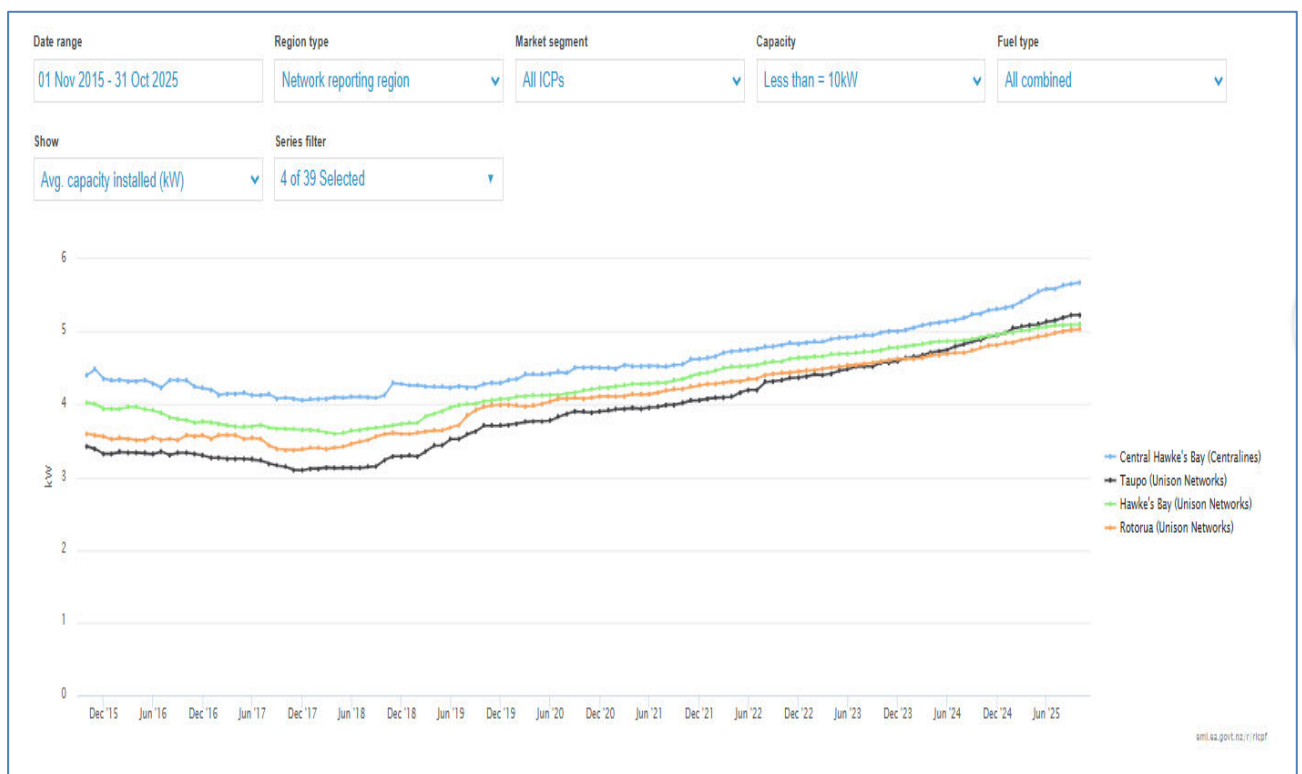
ICP Uptake Rate for SSDG (<10kW) – Residential and Small Business

The percentage of installation control points (ICPs) in each region that have connected small-scale distributed generation (SSDG) systems (less than or equal to 10 kW) from November 2020 to October 2025. This includes both residential homes and small businesses.

Implications for residential and business customers:

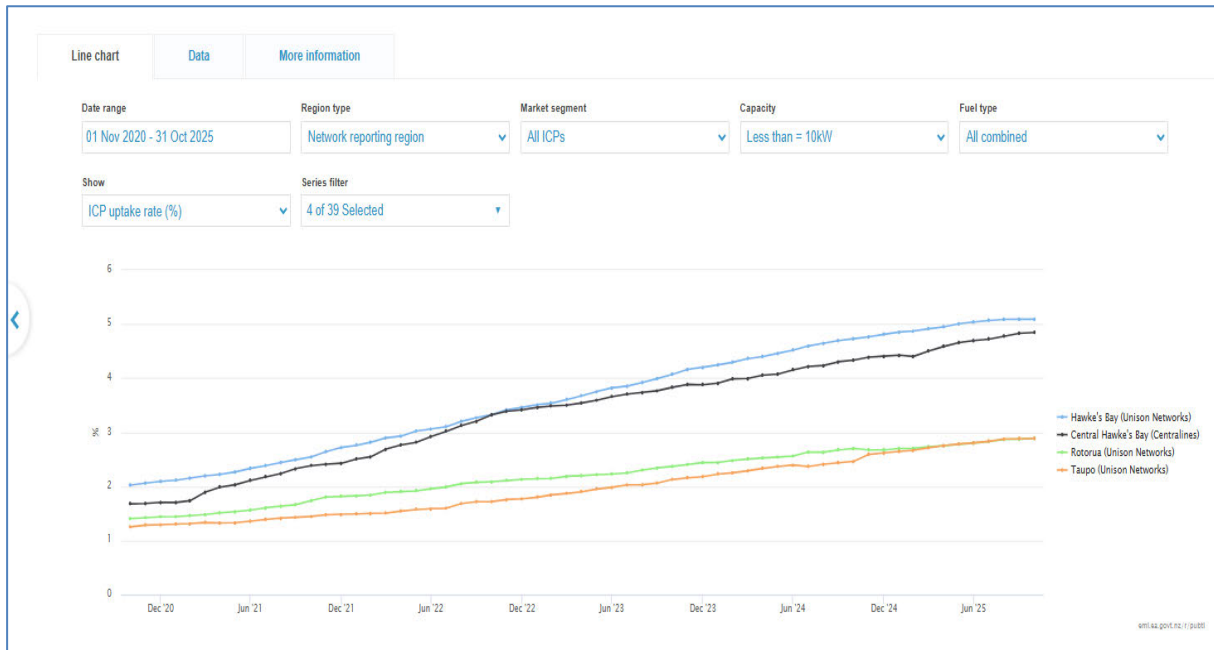
- The increasing uptake rate demonstrates that more households and small businesses are choosing to invest in distributed generation.
- This trend supports the need for streamlined connection processes, clear standards, and consumer protections to ensure all customers can access the benefits of SSDG.

Installed distributed generation – Average capacity installed (kW)³

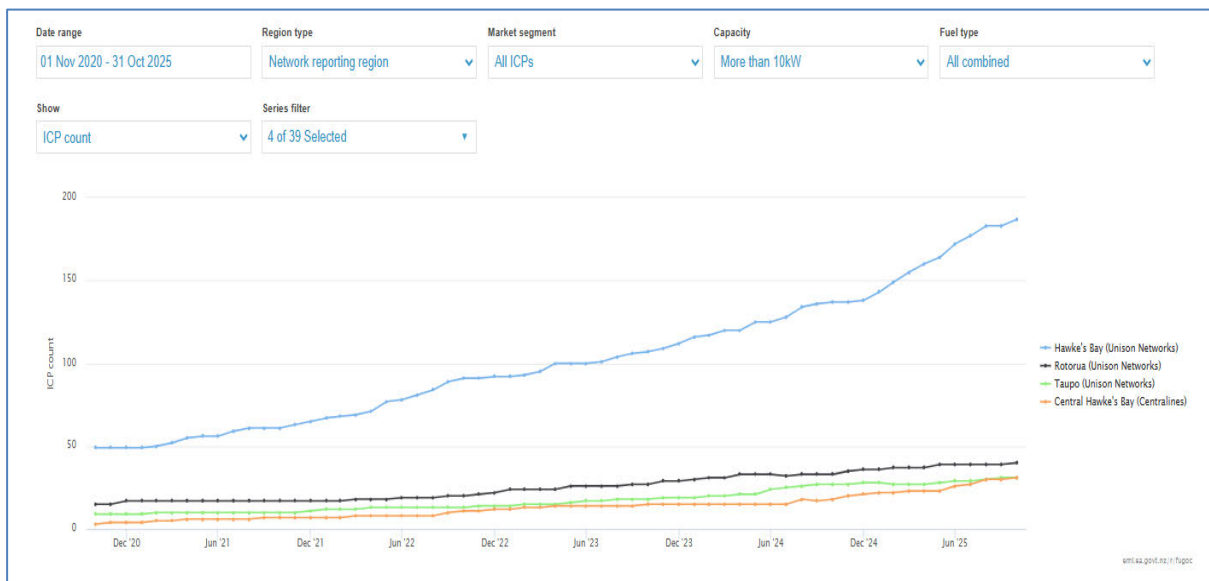


³ [Electricity Authority - EMI \(market statistics and tools\)](#)

Installed distributed generation – ICP uptake rate (%)⁴ - ≤10 kW



Installed distributed generation – ICP uptake rate (%)⁵ - > 10kW



The trends reinforce the need for:

- Clear, consistent, and future-ready regulatory frameworks.
- Streamlined and transparent connection processes for all customer segments.
- Consumer protections and information resources to help customers make informed choices.

⁴ [Electricity Authority - EMI \(market statistics and tools\)](#)

⁵ [Electricity Authority - EMI \(market statistics and tools\)](#)

- Ongoing investment in network visibility and hosting capacity to support continued growth.

These insights support Unison and Centralines' recommendations for Code amendments and industry practices that enable all customers households, small businesses, and larger enterprises to participate fully in New Zealand's energy transition.

2. Transparency, Consistency, and Consumer Confidence

We support the proposed measures to improve transparency and drive industry consistency in how distributed generation is assessed and managed. These steps will strengthen consumer confidence and support a more efficient, standardised system.

- *Publication of methodologies and network assessments*: Requiring all distributors to publish clear and consistent methodologies will reduce variation across regions, support efficient decision-making, and ensure consumers and installers have confidence in a fair and predictable process.
- *Accessible hosting capacity maps and guidance*: Standardised, plain-language hosting capacity maps and supporting guidance will make it easier for consumers and installers to understand local network conditions and investment options, reducing unnecessary effort and improving the efficiency of the connection process.
- *Effective dispute resolution pathways*: Clear, consistent, and well-communicated dispute resolution mechanisms will help ensure timely, fair outcomes and reinforce trust in the overall framework, particularly where connection or export decisions impact consumer expectations.

Unison has, for many years, maintained effective and responsive processes to facilitate SSDG connections. We proactively address gaps in existing Code-required processes, such as notifying the trader at an ICP when an application is approved, to ensure metering is made 'export ready' as soon as possible. In our experience, this is often the time-limiting factor in SSDG connections. We suggest the Code amendments ensure this aspect of efficient SSDG connection is also addressed.

We receive positive feedback from consumers and solar installers on our processes and responsiveness, and we are committed to continuous improvement.

3. Transitional Arrangements

We consider the proposed timeframes 28 days for implementing default limits and four months for publishing methodologies and standards to be reasonable and achievable. To maintain consumer confidence, we recommend that the Authority closely monitor implementation, provide interim support to distributors where needed, and report progress transparently to ensure the changes deliver timely and fair outcomes for consumers.

4. Regulatory Assessment

We agree that the proposals will deliver clear benefits across the electricity system by:

- *Promoting competition*: enabling greater distributed generation (DG) investment and expanding consumer choice.

- *Supporting reliable supply*: integrating more distributed resources and strengthening overall network resilience.
- *Enhancing efficiency*: through standardised processes, improved coordination, and the use of modern technologies.

Currently, we do not have export limits that deviate from AS/NZS 4777 or the Code. Applications above 5 kW per phase are assessed using the Part 1 process, consistent with AS/NZS 4777.1 (2020). In the near future, we intend to overcome this using Network Operational Data (NOD) that we have recently contracted to receive to provide granular hosting capacity at the ICP level using LV visibility maps and ICP search functions, with only connections at locations where there is limited hosting capacity identified due to known congestion needing to go through the Part 1 process.

We intend to allow all other applications up to 10 kW per phase and compliant with AS/NZS 4777 2020 (1 and 2) to be approved under the Part 1A process. This approval process will be streamlined and automated as far as possible. All SSDG will require Volt/Var control modes as per AS/NZS 4777.2 (2020), and export limits will be a maximum, not a capacity right, to ensure equitable access.

This is important so that all consumers have the opportunity to benefit from SSDG, rather than benefits being captured by ‘first movers’, who in most instances are those able to afford technology.

Given the challenges many consumers face with rising energy costs it is important these benefits are available to all, as technology becomes more accessible:

- **Voltage compliance under higher export limits:** as part of updating the relevant technical standards, increasing the default export limit to 10 kW can now be safely achieved within the existing 230 V $\pm 10\%$ voltage requirement. The modern inverter capabilities embedded in AS/NZS 4777.2:2020, including Volt–Watt, Volt–Var, and other power-quality response modes, are specifically designed to maintain voltage compliance on low-voltage networks. These functions automatically reduce export power when local voltages approach the statutory upper threshold, ensuring that export behaviour supports overall network stability.
- **Clarifying terminology: Distributed Generation vs Local Generation:** the term Distributed Generation (DG) as defined in *Part 6 of the Electricity Industry Participation Code* provides the established and enforceable regulatory framework for small-scale generation connected to distribution networks. As the term local generation is not defined in the Code, we interpret it as a subset of DG connected to a distribution network rather than the national grid. We encourage the Authority to retain the established DG terminology in the final amendments to support clarity, consistency, and standardisation across distributors.

Overall, the consumer benefits from lower costs, increased choice, improved reliability, and fairer access to DG substantially outweigh the associated implementation costs. The proposals will enable a more efficient and more integrated distribution system that better supports New Zealand’s long-term energy transition.

4.1. Recommendations for Further Strengthening of proposals

Recommendation	Details
Quantify Benefits	Empirical validation of 10 kW default limit, anticipated deferral of network investments, commission cost/benefit analysis where data is unavailable
Dynamic Export Management	Adaptive limits, time-of-day export caps, customer opt-in control schemes, not a single static default for all customers
Equity and Inclusion	Support mechanisms (subsidised connection studies, low-cost tools) for low-income and vulnerable communities, embed Māori engagement, equitable access to network benefits
Robust Monitoring & Evaluation	Define clear metrics (uptake rates, connection delays, complaints, voltage/frequency deviations), assign responsibilities for reporting, set review points
Regulatory & Technical Design	Tie changes to statutory objective (competition, reliability, efficiency), specify Code amendments (definitions, grandfathering clauses), adopt up-to-date inverter standards (power-quality, cyber-security), align with Authority programmes (smart metering, demand response)
Address Counterarguments	Respond to safety, cost recovery, cross-subsidisation concerns, practical pilots, internal risk mitigation
Commit to Forward Engagement	Next steps: workshops with customers/installers, publish updated ELAM/BELAM methodology by [date], establish internal steering group, report quarterly to Authority

4.2. Policy Lessons from Australia's Distributed Generation Growth

Australia has introduced regulations aimed at clarifying and updating connection processes and standards. However, these changes have not led to a nationwide increase of export limits to 10 kW. In reality, most Australian states set the limit at 5 kW per phase, which aligns

with the recommendations provided in AS/NZS 4777.1. Due to the high level of solar PV on the network, South Australia has introduced dynamic limits for SSDG along the lines of the DSO orchestration of DER and CER using DOEs outlined above.

Notwithstanding the variability of limits between networks in Australia, we support the proposed changes as a way to ensure clear and consistent approaches to assessing, approving and connection of SSDG in New Zealand, and proactively address potential future barriers or impediments that could arise from inconsistent or arbitrary approaches particularly as technology becomes more accessible, market settings evolve that unlock further benefits from SSDG for consumers including MTR, and uptake of SSDG continues to increase.

Australia's rapid growth in distributed generation and rooftop solar provides valuable lessons for New Zealand as it modernises its regulatory framework. Australia's experience demonstrates the importance of dynamic export management, mandatory inverter standards, consumer protection, network visibility, and effective pricing signals in achieving fair and efficient outcomes.

Topic	Australian Experience / Approach	Relevance & Recommended Action for New Zealand
Dynamic Export Management	High solar penetration created grid stability challenges. Distributors adopted Dynamic Operating Envelopes (DOEs) to vary export limits in real time.	Enable dynamic export limits supported by network visibility, smart controls, and real-time data to maximise consumer participation while protecting network reliability.
Mandatory Standards	Early installations used outdated inverters. Australia mandated AS/NZS 4777.2:2020, ensuring all new DG provides voltage/frequency support, fault ride-through, and anti-islanding.	Mandate AS/NZS 4777.2:2020 (with Amendments 1 & 2) and AS/NZS 4777.1 for all new DG connections to future-proof the grid, enhance resilience, and maximise consumer and network benefits.
Consumer Protection and Equity	Some distributors imposed zero-export limits or high connection fees, disadvantaging consumers. Reforms required minimum export levels and transparent connection processes.	Codify default export limits, clarify scope (e.g., LV single-phase vs three-phase), and ensure transparent allocation and connection processes to protect consumers and maintain equity.
Data Transparency and Network Visibility	Limited visibility hindered network planning and export optimisation. Australia invested	Prioritise network visibility and open access to anonymised hosting-capacity data to

	in smart meters, analytics, and public hosting capacity maps.	empower consumers, support innovation, and enable efficient DG integration.
Pricing and Market Signals	Flat/low buy-back rates discouraged optimal exports. Australia introduced time-of-use export tariffs to incentivise exports when most valuable to the grid.	Align export limits with pricing reforms, such as peak buy-back rates, to optimise system efficiency and maximise consumer returns.
Review Cycles for Standards & Limits	Not explicitly mandated in Australia, but regular updates supported ongoing system adaptation.	Establish scheduled review cycles for export limits and technical standards to reflect evolving technology, network conditions, and consumer needs.
Consumer Communications and Tools	Australia provided some guidance, but engagement varied.	Improve consumer communications, online tools, calculators, and guidance, ensuring plain-language information supports informed decision-making.
Outreach to Existing DG Owners	Limited proactive engagement in early rollouts.	Coordinate targeted outreach to existing DG owners to maintain confidence and facilitate smooth transition to new requirements.
Engagement with Consumer Advocacy Groups	Consumer voices were incorporated through some regulatory processes.	Establish structured engagement with consumer and community advocacy groups to ensure policies reflect consumer interests and equity considerations.
Open Data Access for Innovation	Australia's public hosting maps and data enabled third-party innovation.	Support open access to network data to encourage innovation, new services, and additional consumer value.
Mandated Inverter Power-Quality Modes	Australia required modern inverters to support PQ, but standards adoption varied.	Require inverter power-quality modes (harmonics, flicker, volt-var/volt-watt, etc.) in line with AS/NZS 4777.1 to maintain network stability and protect consumer equipment.

Scope of Export Limits	Australia applied export limits variably; some regions used zero-export caps.	Clarify that default export limits apply only to low-voltage single-phase supplies or set differentiated caps for three-phase and higher-voltage connections to ensure fair treatment.
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4.3 Risks

Risk Category	Risk	Implication	Mitigation
Technical Risks	Limited network visibility	Despite ~94%+ smart-meter penetration, gaps remain in real-time LV feeder and transformer visibility, making it difficult to accurately assess hosting capacity or dynamically allocate export limits.	Targeted LV monitoring investment (transformer sensors, feeder voltage monitors); integrate smart-meter data with network analytics; publish minimum data-quality and reporting standards.
Technical Risks	Insufficient smart infrastructure for dynamic export management	Smart meters alone cannot support Dynamic Operating Envelopes (DOEs) without complementary communications, control systems, and analytics.	Develop an industry-wide DOE roadmap; co-invest in communications and IT platforms; align standards with AS/NZS 4777.2 and Authority smart-metering programmes.
Regulatory & Design Risks	Transparency gaps in methodologies and standards	Without clear, published methodologies and regular Code review cycles, distributors may apply export limits inconsistently, reducing consumer trust and risking gaming or disputes.	Mandate published methodologies, including hosting-capacity assumptions; set fixed review cycles (e.g., every 3 years); require distributors to report

			connection timeframes and export-limit outcomes.
Implementation Risks	Data and instrumentation gaps	Even with smart meters, some distributors lack robust analytics systems to convert raw data into actionable hosting-capacity insights or consumer guidance.	Establish common data specifications; invest in analytics tools; support transitional funding or shared services for smaller distributors; require anonymised hosting-capacity maps.
Implementation Risks	Resourcing or IT constraints affecting timeframes	Practical rollout of methodologies, standards, or visibility upgrades may be delayed due to staffing, system upgrades, or vendor capacity constraints—risking slow consumer benefit delivery.	Provide staged implementation windows; offer Authority technical support; coordinate industry readiness checks; allow for proportionality based on distributor size and capability.

4.4. Legal and Code Drafting

Current Drafting / Clause	Issue / Ambiguity	Proposed Redraft / Addition
‘local generation’ means generation that is not grid-connected.	Too vague; could include various non-distribution connections.	‘local generation’ means electricity generation physically connected to a distribution network and not directly connected to the national grid, including small-scale embedded generation, community energy schemes, and behind-the-meter installations.
‘hosting capacity’ is the maximum amount of distributed generation that can be accommodated.	Lacks reference to technical limits and methodology.	‘hosting capacity’ means the maximum aggregate capacity of distributed generation that can be connected to a specified section of the distribution network without breaching statutory voltage, thermal, or protection limits,

		as determined by the distributor's published methodology.
'small-scale embedded generator' means a generator with a capacity less than 10kW.	Unclear if per phase, per ICP, or aggregate; could be misinterpreted.	'small-scale embedded generator' means a distributed generation installation with a total nameplate capacity not exceeding 10kW per installation control point (ICP), as measured at the point of connection to the distribution network.
Boundary points between distributors not clearly defined.	Ambiguity may cause operational disputes.	'boundary point' means the physical demarcation on the electricity network where operational control and responsibility transfer from one distributor to another, as specified in the relevant network connection agreement.
No clause on legacy contracts and imported metering data.	Risk of disrupting existing arrangements.	All distributed generation installations and metering arrangements established prior to the commencement date of these amendments shall continue to be governed by the terms and conditions of their existing contracts, unless otherwise agreed by both parties. Where metering data is imported from legacy systems, the distributor must ensure data integrity and compatibility with current Code requirements.
No clause on ancillary losses from DG side.	No clear limit or methodology for losses.	The maximum permitted ancillary losses attributable to distributed generation installations shall be specified in the distributor's published methodology and must not exceed [X]% of the exported energy, unless otherwise approved by the Authority.
No grandfathering provision for pre-existing installations.	Regulatory uncertainty for existing DG owners.	Distributed generation installations commissioned prior to [date] shall be exempt

		from new technical requirements introduced by these amendments, except where safety or network integrity is at risk. Such installations may continue to operate under the terms prevailing at the time of connection.
‘section of network that carries electricity from the ICP or group of ICPs to the network.’	Ambiguous; unclear what constitutes a ‘section’.	Replace with: ‘the segment of the distribution network between the point of connection and the first upstream protection device under the distributor’s operational control.’

The table above identifies specific areas where definitions, transitional arrangements, and operational boundaries would benefit from further clarification or amendment. Our recommendations are intended to support the Authority in achieving clear, enforceable, and future-proof Code drafting minimising interpretive risk and ensuring the regime operates as intended for all stakeholders.

Example: Ambiguous Definition of ‘Hosting Capacity’

Background:

In Australia, early versions of distributed generation regulations used the term ‘hosting capacity’ without a standardised definition. As a result, different distribution businesses applied inconsistent methodologies, leading to confusion among solar installers and customers about the true export limits for their connections.

Outcome:

This ambiguity resulted in customer complaints, delays in solar connections, and disputes between distributors and consumers. The regulator subsequently mandated a standardised definition and methodology for calculating hosting capacity, which improved transparency, reduced disputes, and streamlined the connection process.

Lesson for New Zealand:

A clear, standardised definition of ‘hosting capacity’ in the Code, along with a requirement for published methodologies, will help ensure consistent application and avoid similar issues. This demonstrates how ambiguous definitions or unclear transitional arrangements can lead to disputes, operational inefficiencies, or unintended regulatory outcomes.

5. Conclusion

Unison and Centralines acknowledge the Authority's leadership in advancing this significant initiative. We remain dedicated to collaborating with the Authority and industry stakeholders to implement these changes and further develop our network practices in alignment with New Zealand's energy transition.

Additionally, Unison and Centralines support the objectives and direction outlined by the Electricity Networks Association (ENA) in its response to this consultation:

- *Consumer centric outcomes*: Ensuring that consumers who invest in DG resources can maximise the benefits of their technology through fair export limits
- *Practicality and realism*: Regulatory changes are achievable within realistic timeframes that avoid unnecessary complexity or cost for the industry and consumers
- *Industry-led methodologies*: allowing industry to develop and maintain technical frameworks such as ELAM and BELAM
- *Legal compliance and drafting*: alignment with legislative requirements while improving clarity and accuracy in Code wording to avoid misinterpretation or unintended consequences.

Maximising the value of local generation offers clear and enduring benefits for consumers and the wider electricity system, including:

- More efficient use of rooftop solar, enabling households and businesses to capture and export surplus generation.
- Stronger competition in electricity supply, supporting greater consumer choice and innovation.
- Deferral of costly network reinforcement, delivering long-term savings for all consumers.
- Improved resilience to supply disruptions and network shocks.
- Downward pressure on electricity prices and emissions.

We encourage the Authority to ensure these reforms are closely aligned with its related workstreams, including distribution pricing reform, connection pricing, flexibility services, smart-metering policy, and emerging DSO/DER integration work. Coordinating these programmes will ensure consistent signals for consumers and distributors, reduce duplicative implementation costs, and help build a coherent, future-focused regulatory framework.

We welcome the opportunity to work with the Authority and the wider sector to ensure a smooth, equitable, and consumer-focused implementation. This submission is not confidential and will be published. For further information, including operational considerations, please contact us.

Nā māua noa, nā

Jason Larkin / Tarryn Butcher
GM Commercial and Regulatory / Regulatory Manager



Appendix B Format for submissions

Maximising benefits from local generation

Submitter	Tarryn Butcher
Submitter's organisation	Unison Networks Limited

Please send your submission to connection.feedback@ea.govt.nz by **5pm, Wednesday 19 November 2025**

Questions	Comments
Q1. What are your views on the proposal to set a default 10kW export limit for Part 1A applications?	We support the proposal to set a default 10kW export limit for Part 1A applications. We agree this will maximise consumer choice, support the uptake of solar and battery systems, and deliver system-wide benefits. We recommend empirical validation of this threshold and support the ability for distributors to set lower limits were justified by network constraints, using a transparent methodology.
Q2. What are your views on the Code clarifying that a distributor cannot limit the nameplate capacity of a Part 1A application, unless the capacity exceeds 10kW?	We support this clarification. Allowing consumers to install systems sized to their needs, with export limits managed separately, will enable more flexible and future-ready energy solutions. This approach aligns with our principle of supporting consumer choice and ensures that network management focuses on export impacts rather than arbitrary restrictions on installed capacity.
Q3. There are requirements for distributors in Proposal A1. Which of these do you support, or not support, and why?	We support the requirements for distributors to undertake network assessments, publish methodologies, and provide clear information on areas with lower export limits. These measures will improve transparency, consistency, and consumer confidence. We recommend that the assessment methodology be developed collaboratively with industry and regularly reviewed to reflect evolving network conditions.

Q4. What are your views on the proposal for industry to develop an export limits assessment methodology?

We strongly support an industry-developed export limits assessment methodology (ELAM). This will ensure national consistency, transparency, and robust decision-making. We recommend that the methodology be subject to periodic review and that distributors be required to publish both the methodology and the results of network assessments.

Q5. What would you do differently in Proposal A1, if anything?

We suggest including provisions for dynamic export limits (DOEs) as network visibility and operational capabilities improve. This would allow export limits to be adjusted in real time based on network conditions, maximising consumer participation while protecting network reliability. We also recommend enhanced consumer information and protections to ensure systems are sized appropriately for individual needs.

Q6. What concerns, if any, do you have about required the 2024, rather than 2016, version of the inverter installation standard for Part 1A applications?

We support the adoption of the latest inverter installation standard (AS/NZS 4777.1:2024). This will ensure all new installations meet current best practice for safety, reliability, and power quality. We do not anticipate significant concerns, as the standard is already widely adopted in Australia and aligns with international best practice.

Q7. Do you support amending the New Zealand volt-watt and volt-var settings to match the Australian values for Part 1A applications - why or why not – what do you think are the implications?

We support aligning New Zealand volt-watt and volt-var settings with Australian values. 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.

Q8. What would you do differently in Proposal A2, if anything?

We recommend that distributors retain the ability to set alternative volt response settings within the allowed range, based on local network conditions. We also suggest ongoing monitoring and review of the impact of these settings on network stability and consumer outcomes.

Q9. Do you have any concerns about the Authority

We do not have significant concerns. Adopting the Australian settings will ensure inverters

citing the Australian disconnection settings for inverters when high voltage is sustained?

disconnect only when necessary, supporting both network safety and consumer benefit. We recommend clear communication to installers and consumers regarding these requirements.

Q10. Do you have any concerns about the Authority requiring the latest version of the inverter performance standard for Part 1A applications?

Mandating the latest inverter performance standard will improve system stability, safety, and consumer outcomes. It is consistent with international best practice and supports the long-term reliability of distributed generation.

Q11. What are your views on the proposal that where distributors set bespoke export limits for Part 2 applications, they must do so using the industry developed assessment methodology?

Using a standardised, industry-developed methodology for bespoke export limits will ensure fairness, transparency, and consistency across networks. It will also facilitate efficient network planning and consumer confidence.

Q12. What are your views on the several requirements that must be adhered to regarding the distributors' documentation (see paragraph **Error! Reference source not found.**) relating to setting export limits under Part 2?

We support the requirements for documentation, transparency, and sharing of export limit analyses with applicants. This will empower consumers and developers to make informed decisions and improve trust in network decision-making.

Q13. Do you agree it is fair and appropriate that where distributors set export limits for Part 2 applications, applicants can dispute the limit? If so, what sort of process should that entail?

Applicants should have access to a clear, fair dispute resolution process, including mediation and arbitration if necessary. This will ensure timely and equitable outcomes and reinforce trust in the regulatory framework.

Q14. What would you do differently in Proposal B, if anything?

We recommend periodic review of the bespoke export limits assessment methodology (BELAM) and enhanced consumer engagement to ensure the process remains fair and effective as technology and market conditions evolve.

Q15. What are your thoughts on requiring the inverter

It will ensure all new DG installations meet robust standards for voltage and frequency support,

performance standard (AS/NZS 4777.2:2020 incorporating Amendments 1 and 2) for low voltage DG applications in New Zealand?

fault ride-through, and anti-islanding, enhancing system stability and consumer protection.

Q16. Do you consider the transitional arrangements workable regarding requirements and timeframes? If not, what arrangements would you prefer?

We consider the proposed transitional arrangements reasonable and achievable. We recommend active monitoring and interim support for distributors during implementation, with regular reporting to maintain accountability and consumer confidence.

Q17. What are your views on the objective of the proposed amendments?

The objective to promote competition, reliability, and efficiency for the long-term benefit of consumers. The proposed amendments are well-aligned with these goals and will deliver meaningful benefits across the electricity system.

Q18. Do you agree the benefits of the proposed amendments outweigh their costs? If not, why not?

Yes, we agree. The benefits including increased consumer choice, improved network efficiency, reduced costs, and enhanced system resilience substantially outweigh the implementation costs.

Q19. What are your views on the Authority's estimate of costs of lost benefits from a 5kW export limit?

Low export limits result in lost benefits for consumers and the wider system. Moving to a 10kW default limit will reduce 'spilled' electricity and improve returns for DG owners, supporting further investment and system efficiency.

Q20. Are there costs or benefits to any parties (eg, distributors, DG owners, consumers, other industry stakeholders) not identified that need to be considered?

We note the potential for unintended consequences, such as sales organisations upsizing systems beyond consumer needs. We recommend enhanced consumer information and protections to ensure systems are appropriately sized. We also highlight the importance of equity and inclusion, ensuring benefits are accessible to all consumers.

Q21. Do you agree the proposed Code amendments are preferable to the other options? If you disagree, please explain your preferred option in terms consistent with

We agree the proposed Code amendments are preferable. They provide a clear, consistent, and enforceable framework that supports competition, reliability, and efficiency, while empowering consumers and supporting the energy transition.

the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010

Q22. Do you agree the Authority's proposed amendments comply with section 32(1) of the Act?

The proposed amendments comply with section 32(1) of the Act. They are necessary and desirable to promote competition, reliable supply, and efficient operation of the electricity industry for the long-term benefit of consumers.

Q23. Do you have any comments on the drafting of the proposed amendment?

The support the drafting and recommend ongoing review to ensure clarity, enforceability, and alignment with evolving industry standards and consumer needs.