

Submission form (Plug-in generation)

Please email your submission to: connection.feedback@ea.govt.nz by 5pm, Tuesday 6 October 2026

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Questions on issues regarding plug-in generation

Questions	Comments
Q1. Do you have any views on our characterisation of plug-in generation?	We broadly agree with the Authority's characterisation. Plug-in generation is likely to be small, consumer-installed, portable and primarily used for self-consumption, but it should still be treated as potentially export-capable where connected to an installation that is connected to a distribution network. The regulatory approach should therefore be proportionate: enabling consumer choice and innovation while managing safety, power quality, visibility and reconciliation risks.
Q2. What network performance requirements should apply to plug-in inverters in New Zealand, and why?	At a minimum, plug-in inverters should include anti-islanding, voltage and frequency operating limits, rapid disconnection outside safe parameters, reconnection delay, power quality controls, harmonic limits and appropriate ride-through behaviour. Requirements should align with New Zealand network conditions and be based on recognised international standards where fit for purpose. They should be simple enough to be embedded in product compliance at point of sale, rather than relying on individual consumers to interpret technical requirements.
Q3. What do you think of the Authority excluding plug-in generation standards from the Code?	We support the Authority's preferred approach, provided the relevant safety and performance standards are clearly captured through the appropriate product safety and electrical safety framework. The Code is unlikely to be the most effective mechanism for consumer-facing product compliance because most plug-in generation customers will not directly engage with the Code. However, the Code should remain able to reference or rely on those standards where export payment, registry treatment or interaction with distributor processes is required.
Q4. Do you agree that in the absence of a professional intermediary, it will be challenging to obtain a Part 6-type application from a plug-in generation consumer? Why, why not?	Part 6 obligations are not appropriate for plug-in solar. Counties Energy supports a limited-obligations approach, provided the system is primarily for self-consumption, any incidental surplus export is treated as gifted, and the system remains below a prescribed safety-based size threshold. This avoids creating an incentive to monetise plug-in connections or circumvent fixed installations, which are subject to stricter safety requirements. The Authority also needs to clarify how this approach would apply where DER already exists at the site and has been approved under Part 6—for example, fixed solar, V2X or both—and the customer subsequently adds plug-in generation. The treatment should account for aggregate generation and export capability at the ICP, interaction with existing export limits and approval conditions, and when a variation or new Part 6 approval would be required. Although non-compliance will be difficult to police, the Authority should mandate two-channel import/export-capable smart metering at ICPs. The incremental cost compared

	with standard smart metering is negligible, while the enhanced data would allow retailers and distributors to identify sustained export and support targeted follow-up for this and other emerging use cases.
Q5. For a consumer to connect plug-in generation to their premises, should some form of Part 6-type application process be required? Why, why not?	No full Part 6 application should be required for compliant plug-in generation below the prescribed threshold and used primarily for self-consumption. A limited-obligations pathway should apply instead, without relying on the existing registry. A Part 6 approval pathway should apply where a customer exceeds the threshold, wants to be paid for export, operates alongside fixed DG in a way that could increase aggregate export, or otherwise creates a material network risk.
Q6. If a form of Part 6-type application process should be implemented for plug-in generation, do you see that is a notification/registration, or an application that requires distributor approval? Why?	Counties Energy supports a limited-obligations pathway rather than distributor approval for compliant systems below the threshold. This should not depend on the existing registry, given the likely data-quality issues. Distributor approval should be reserved for systems seeking export payment, exceeding the threshold, or presenting a specific safety, power-quality or hosting-capacity concern.
Q7. What information should be required if a registration or application for a plug-in generation unit is to be implemented?	If a registration process is implemented, it should capture only essential information: the ICP or address, device make/model, rated generation and maximum export capability, applicable certification, confirmation of self-consumption use, acknowledgement that incidental export is gifted, and confirmation that aggregate capacity is below the prescribed threshold. However, a register will be difficult to keep current when customers move, relocate or stop using devices, replace equipment, dispose of systems, or connect multiple units. Customers may not update notifications, leaving unreliable data. This risk should be central to the design. Unless updates can be automated or validated through retailer and smart-meter processes, the Authority should consider not creating a register, as inaccurate data may provide false assurance and limited operational value.
Q8. Would participants benefit from a registry that captures information about plug-in generation? Why, why not?	Participants are unlikely to receive sufficient benefit from a formal registry because the information would not be reliably maintained. Portability, customer moves, discontinued use, replacements and multiple devices mean records could quickly become stale. An unreliable register may create false assurance and impose administration costs without providing dependable operational visibility. Monitoring through smart-meter data, reverse-power indicators, retailer and MEP information, and product sales or importer data is preferable.
Q9. Should the existing registry be used? Why, why not?	No. The existing registry should not be used for plug-in generation because the data is unlikely to be sufficiently reliable. Plug-in systems are portable and may be moved, replaced, disposed of or no longer used without the customer updating the record. Linking this information to an ICP could therefore quickly become inaccurate and provide false assurance. Counties Energy considers that mandated two-channel import/export-capable smart metering, with appropriate access for retailers and distributors, would provide a more reliable basis for identifying uptake and material export behaviour. The incremental metering cost is negligible relative to the enduring data benefits across plug-in generation and other emerging use cases.
Q10. Should entering information about plug-in generation be a requirement only after export has been identified at an ICP? Why, why not?	No formal registry entry should be required, whether before or after export is identified, because the resulting dataset is unlikely to be reliable. The Authority should instead mandate two-channel import/export-capable smart metering so confirmed reverse flow and sustained export can be identified directly. This should trigger targeted customer engagement and, where applicable, transition to Part 6 approval or compliance follow-up.

Q11. Would the type of information able to be collected at point of sale be sufficient to meet industry needs? Why, why not?	Point-of-sale information can provide product identity, capacity and certification, but it will not reliably identify the ICP, installation date, subsequent relocation, discontinued use or aggregate capacity at a premises. It is useful for monitoring sales and the installed population at a national level, but not as a complete operational register. Utilities also currently have limited or no visibility of other small-scale generation or storage devices connected behind the meter, such as uninterruptible power supply (UPS) systems and diesel generators, which illustrates the practical limits of relying on product-level information for operational visibility. Any ICP linkage would need validation through retailer processes and smart-meter data.
Q12. Should the MEPs reverse power indicator be leveraged in identifying potential plug-in generation export? Why, why not?	Yes. Reverse-power indicators and interval data should be leveraged to identify sustained export or export inconsistent with the limited-obligations pathway. The Authority should mandate two-channel import/export-capable smart meters so export is consistently measured rather than inferred. Given the negligible incremental cost and broad data value, access and information-sharing arrangements should allow retailers and distributors to investigate material cases, subject to suitable privacy and governance controls.
Q13. Do you agree there is merit in considering whether retailers should be the primary customer interface for plug-in generation registration/notification? Why, why not?	Retailers should be the primary customer interface for education and any targeted notification arising from smart-meter or reverse-power information. However, Counties Energy does not support relying on retailers to maintain a formal plug-in generation register, as customer moves, device relocation and discontinued use would still leave material data-quality gaps. Relevant information should be shared with distributors for investigation of material network risk or non-compliance.
Q14. Do you have any other suggestions on how consumers could be informed of Code requirements for plug-in generation?	Information should be provided through product packaging and point-of-sale material, retailer communications, distributor and Authority websites, and QR-linked guidance. It should clearly explain the safety threshold, self-consumption and gifted-export conditions, when Part 6 approval and import/export metering are required, and the customer's responsibility to notify any move, disposal, replacement or change in use if a register is adopted.
Q15. Should an ability for plug-in generation consumers to receive payment for export be predicated by some form of Part 6 application and approval process? Why, why not?	Yes. Payment for export should require the normal Part 6 approval and compliant import/export metering arrangements. The limited-obligations pathway should be confined to self-consumption systems below the threshold, with incidental export treated as gifted. This removes the incentive to use plug-in generation to bypass the stricter safety and connection requirements for permanently fixed DG.
Q16. What measures could be implemented to inform consumers of electricity export at their ICP that is potentially associated with plug-in generation, and what information should this include?	Retailers should notify customers when two-channel smart-meter data indicates sustained export and explain that incidental export under the limited-obligations pathway is gifted. Information should cover the export observed, the safety-based threshold and the conditions requiring Part 6 approval. Distributors should have access to relevant data to investigate material power-quality, capacity or compliance concerns. The Authority should mandate import/export-capable smart metering because the incremental cost is negligible relative to the enhanced data support it provides.
Q17. Should consumers be proactively informed of the potential for plug-in generation to export to a network. If so, which party is best placed to undertake this education role?	Yes. Consumers should be informed at point of sale, with retailers reinforcing the message through onboarding, move and account-change processes. The information should explain that plug-in generation may export, incidental export is gifted under the limited-obligations pathway, and export payment requires Part 6 approval and appropriate metering. A coordinated Authority-led template would support consistent messaging.

Q18. What issues do you see with more UFE in the reconciliation system as a result of more export from plug-in generation?	Small incidental gifted exports are unlikely to be material initially. However, increasing uptake could raise UFE, distort loss-factor analysis, obscure metering or data issues and shift costs between traders or consumers. Mandating two-channel import/export-capable smart metering would materially improve visibility and reduce reliance on estimates, at negligible incremental cost. The Authority should use this data to monitor aggregate export and set review triggers based on penetration and materiality.
Q19. Do you agree with our view that plug-in generation export with no measurement enabled can be treated as UFE in reconciliation processes, with no need for formal gifting documentation? Would your view change as plug-in generation increases?	For systems below the threshold and primarily used for self-consumption, incidental export should be treated as gifted without separate gifting documentation. However, Counties Energy does not support a long-term reliance on unmeasured export and UFE. The Authority should mandate two-channel import/export-capable smart metering so export is visible even where it is not monetised. The negligible incremental cost is justified by improved reconciliation, network planning and compliance data.
Q20. If gifting documentation were to be required by a plug-in generation consumer, how could this be facilitated?	Separate gifting documentation should not be required. If the Authority retains it, it should be a simple digital acknowledgement managed by the retailer when sustained export is identified or the customer seeks export-related services. It should not rely on the existing registry.
Q21. Are there other genuine issues identified by the reverse power indicator?	Yes. Reverse-power indicators can also identify wiring or metering faults, incorrect meter orientation or configuration, unapproved fixed generation, multiple plug-in units, storage discharge, or export exceeding an approved limit. These legitimate signals should not be obscured by high volumes of low-level plug-in export.
Q22. Should the requirement on the MEP to notify the retailer via a reverse power indicator be reconsidered, if more plug-in generation is used? Why, why not?	The notification requirement should be retained but refined. The Authority should mandate two-channel import/export-capable smart meters so reverse flow can be measured consistently, with retailers and distributors receiving appropriate access to material events and interval data. Thresholds and persistence criteria could reduce low-value alerts while preserving genuine safety, integrity and compliance signals. The incremental metering cost is negligible relative to the wider data value.
Q23. Is there a way for a MEP to filter out plug-in generation related reverse power indicators?	Potentially, by applying magnitude, duration, persistence and time-of-day thresholds to two-channel interval data, and by comparing patterns with known fixed DG or batteries. Filtering will not be exact, so the data should prioritise investigation rather than conclusively identify plug-in generation. Mandating import/export-capable smart meters would provide a consistent data foundation without depending on an unreliable registry.
Q24. Should Part 10 include an exclusion for requiring import/export metering for plug-in generation? Why, why not?	No. Part 10 should not exclude plug-in generation from the requirement for import/export-capable metering. The Authority should mandate two-channel smart meters because the additional cost compared with standard smart metering is negligible, while the export data supports reconciliation, customer education, network planning, compliance and emerging use cases. Payment for export should still require Part 6 approval, but the meter should record export whether it is paid or treated as gifted.
Q25. Should Part 6 clarify requirements for a plug-in generation system being connected alongside approved permanently-fixed DG?	Yes. Part 6 should clarify that the aggregate export capability at the ICP must remain within the approved fixed-DG export limit and applicable plug-in threshold. If plug-in generation could increase export beyond the approved limit, the customer should obtain distributor approval and, where relevant, updated metering and protection arrangements.
Q26. Should the Code clarify limits on the amount of plug-in generation capacity that can	Yes. A nationally consistent aggregate capacity or maximum-export threshold at each ICP should define eligibility for the

be connected at an ICP (noting any standards developed may define limits)?	limited-obligations pathway. The threshold should be set on safety and network-performance evidence, account for multiple units, and require a normal Part 6 process above the threshold.
Q27. What sources of information could the Authority use to monitor uptake of plug-in generation and/or any issues that may arise?	The Authority should use product sales and importer data, mandated two-channel smart-meter and reverse-power information, retailer and MEP notifications, distributor power-quality and hosting-capacity data, safety incidents, complaints and enforcement information. Counties Energy does not consider the existing registry appropriate because portability and customer behaviour would make it materially incomplete. Import/export-capable metering provides more reliable, scalable data at negligible incremental cost.
Q28. Do you agree with our overall characterisation of the challenges of plug-in generation? Why, why not?	We broadly agree, but the paper should more clearly distinguish low-risk self-consumption from export-oriented generation and recognise that the existing registry is not suitable for portable plug-in devices. A safety-based threshold, gifted treatment of incidental export, clear escalation to Part 6, and mandated two-channel import/export-capable smart metering are more dependable. The enhanced data supports this and other emerging use cases at negligible incremental cost.
Q29. Which of the challenges outlined in this paper present the most pressing issue for the Authority to address?	The most pressing issues are establishing a clear safety-based size threshold and product standard, defining the boundary between the limited-obligations pathway and Part 6, and mandating two-channel import/export-capable smart meters with appropriate distributor and retailer access. This provides reliable visibility of material or sustained export at negligible incremental cost and avoids dependence on an inaccurate registry.