

Network Connections Technical Group

**Minutes of meeting held on 11 December 2025, 9.00am to 1.00pm
EA Office, Level 7 AON Centre, 1 Willis Street and online via Teams**

Members present: Grant Benvenuti (Chair), Ron Beatty, Paul Blue, Gavin Bonnett, James Byrne, Trent Tscheuschler, Howard Wood

Apologies: Matt Gazzard, Suzanne Doran, Michael Gibbs, Tim Edmonds, Anna Li (observer), Rupert Holbrook (observer), Stuart Johnston (observer)

Authority attendees: Allen Davison, Andrew Zielinski, Lydia Ayto, Gary White (from 12pm)

External guests Dr Allan Miller (ANSA), Gareth Williams (SEANZ)

1. Introduction

- 1.1. Grant Benvenuti opened the meeting and reminded members that their terms of appointment are due to expire in February 2026. Grant said the Authority intends to amend the terms of reference for the NCTG to expand its scope to the wider network services work programme. Due to the changed terms of reference, the group would be renamed the ‘Network Services Technical Group’ (NSTG).
- 1.2. The Authority would be seeking nominations for the new NSTG in the coming weeks. Current members would need to be re-nominated to be considered for the NSTG.
- 1.3. Andrew Zielinski gave an overview of the focus for the meeting which was primarily to discuss submission feedback on the consultation paper *Maximising benefits from local electricity generation*.
- 1.4. Dr Allan Miller attended to provide expert input on his work on export limits and give a presentation on ‘Solar PV hosting capacity, network congestion and capex, and mitigating congestion’. Gareth Williams attended to present on ‘PV Battery Energy Systems Storage issues’.

2. Presentation from Gareth Williams – PV BESS Issues

Gareth Williams joined the meeting at 9.15am

- 2.1. Gareth Williams joined the meeting via Teams to present SEANZ's views on export limits and PV issues.
- 2.2. Gareth noted that SEANZ are supportive of the proposed adoption of a default 10kW export limit (as per its submission). He noted that residential PV system size has been increasing over the last five years. The current average residential system size was 8.5kW. However, SEANZ consider that roof size and cost will be the limiting factor for the size of residential PV systems.
- 2.3. SEANZ considered that distributors current concerns about the increase to a 10kW export limit were exaggerated. This was because most systems will not export 10kW due to roof space limitations and the increasing installation of battery storage alongside solar will work to reduce export. Solar penetration would need to reach high levels (~ 30%) before congestion becomes a significant issue. By this time, the expectation is that distributors will have invested in systems to manage higher penetration levels.

Gareth Williams left the meeting at 10.30am

3. Presentation from Dr Allan Miller - solar PV hosting capacity, network congestion and capex, and mitigating congestion

- 3.1. Allan Miller gave a presentation to the NCTG about ANSA's modelling work around future hosting capacity. This included demonstrating how changes in export limits, voltage limits and inverter voltage response settings impacts on network congestion.
- 3.2. Allan indicated ANSA tentatively support adopting the proposed 10kW default limit and the Australia A volt-watt and volt-var settings. Allan noted that, from his review of the submissions on the consultation paper, there may be disappointment from customers with solar if, and when, the buy-back price drops due to increased supply of electricity from increased solar uptake.
- 3.3. Increasing solar uptake may eventually result in excess electricity supply in summer, coincident with low electricity demand, and in spring coincident with high hydro inflows.
- 3.4. ANSA considers that local energy storage, such as battery systems combined with rooftop solar, hot-water storage, and EV charging, is a crucial approach to avoid congestion. ANSA notes that such an approach requires a change to the way local storage is managed. This is to ensure it stores energy evenly over the solar generation window, to avoid high exports resuming once the storage is full.
- 3.5. ANSA also notes that, as concluded in EECA's 2025 residential solar study, the same battery storage, and potentially vehicle-to-grid, can be used to reduce peak demand at traditional network peaks, thus providing a double benefit.

4. Overview and discussion of export limits submission feedback

4.1. Andrew gave an overview of the submissions received in response to the *Maximising benefits from local electricity generation* consultation paper. The Authority received 116 submissions on the consultation paper which largely supported the proposals, noting some mixed feedback from distributors.

10kW default export limit

4.2. Andrew noted there was a mixed reception from distributors on the 10kW default limit in submissions. Several were already implementing this or supportive, seeing no major issues. However, key concerns were that allowance for dynamic export limits should be provided, as it undertaken in South Australia.

4.3. Further, several distributors submitted that, in their view, the default limit was likely to cause a 'first mover' advantage where early DG adopters took up the network capacity leading to curtailment for later adopters.

4.4. The NCTG noted that communications about the 10kW limit should be clearer that the 10kW limit is a maximum allowable limit rather than a target. This was to help manage consumer expectations.

4.5. There were mixed views expressed amongst the NCTG on the practicality of the 10kW default. One member considered distributors did not yet have the mechanisms to manage the increased limit. Another noted there was not evidence of widespread voltage increases from existing exports.

Australian voltage response settings

4.6. The NCTG discussed the issue of adopting the 'Australia A' voltage response inverter settings and whether this means the Australian frequency setting are also adopted. The most practical option appeared to be adopting the full suite of Australian settings, given these are factory set. This would provide more consistent inverter performance than installers adjusting individual settings.

4.7. The NCTG noted the system operator had not submitted on the consultation paper. Members thought it was important the system operator provide feedback on whether the adoption of the full 'Australia A' inverter performance settings would impact frequency on the transmission network. The Authority undertook to consult directly with the system operator.

4.8. The NCTG advised that, subject to consultation with the system operator, its recommendation was to adopt the full 'Australia A' inverter performance settings as a first step. It also recommended that the Authority monitor the implementation of those settings for suitability to NZ conditions.

Export limit assessment methodology

4.9. Most distributors were supportive of this proposal to develop a standardised export limits assessment methodology. This was subject to industry-led development. Some were

concerned that the assessment methodology would be too high level to be useful or would not allow sufficient local flexibility.

- 4.10. The NCTG recommended that the underlying principle behind the assessment methodology should be transparency and consistency across distributors. It noted that the methodology would need to have sufficient detail to be useful for distributors.

5. Update on Authority's network visibility programme

Network visibility programme

Gary White joined the meeting at 12pm

- 5.1. Gary gave an update on the Authority's network visibility work programme. He noted that the Authority held an in-person workshop in September 2025 to seek feedback from a variety of stakeholders on its discussion paper *Exploring network visibility: costs, benefits and value*. Written feedback was also provided on the discussion paper.
- 5.2. Gary sought feedback from the NCTG about the common ground between the network visibility work programme and the network connections project regarding standardisation. He noted that feedback at the workshop and in writing included that access-seekers find it difficult to use existing distributor information disclosures due to the variability in how the information is presented.
- 5.3. NCTG members suggested that a focus of the network visibility work could be on standardising how distributors share network information rather than how distributors collect information. This would take into consideration that distributors have different levels of access to data about their networks and record it in different ways.

Ron Beatty left the meeting at 12.35pm; James Byrne left the meeting at 1pm

6. Next meeting

- 6.1. The Authority will consider scheduling the next meeting of the newly formed NSTG in early 2026.

The meeting concluded at 1.15pm

Confirming that the NCTG has approved that the meeting minutes are a true and correct record.

Dated: 22/12/25



Grant Benvenuti, Chair