FAQ for STNW3514 and STNW3515

Why do we need STNW3514 and STNW3515?

These standards consolidate requirements from numerous other standards, better align with the main grid embedded generation standards (STNW1170, STNW1174, STNW3510 and STNW3511) whilst tailoring, where necessary, for the needs of Isolated Networks to maintain their stability and operation within their capacity limits.

When do embedded generation (EG) systems connecting to Isolated Networks need to be compliant to the new standards STNW3514 and STNW3515?

From **1 October 2025** it will be mandatory for all newly installed EG, including inverter energy systems, connecting to Isolated Networks to be compliant with STNW3514 or STNW3515, whichever is the relevant standard.

What does STNW3514 apply to?

In general, it applies to inverter energy systems (IES) with capacities ≤ 30 kVA connecting to an Isolated Network with either a fixed export limit or a dynamic connection. Some IES ≤ 30kVA, if considered non-standard, may be assessed under STNW3515 (see section 2.3.1 of the Standard for further detail).

What does STNW3515 apply to?

In general, it applies to EG connecting to Isolated Networks which comprises either:

- IES capacities above 30 kVA and less than or equal to 1500 kVA; or
- Rotating machines less than or equal to 1500 kVA.

What are the differences between Unmanaged Hosting Capacity, Generation Management and Output Smoothing?

Unmanaged Hosting Capacity is the limit for hosting of embedded generation without Generation Management capabilities.

Generation Management is a method via which the output of electricity, typically from a renewable source, is controlled. Generation Management Includes utilisation of technologies such as the use of use of Dynamic Operating Envelopes or, the use of energy storage to control the output profile of an IES Unit installation via Output Smoothing.

Output Smoothing is a form of Generation Management, defined by the additional requirements in Appendix H of the Standards, in which an energy storage system (ESS) is used to limit the rate-of-change of the generation output of a renewable source of electricity such as PV.

What is the difference between the main grid EG standards and the Isolated Network EG standards?

The main grid EG standards include STNW1170, STNW1174, STNW1175, STNW3510 and STNW3511.

The Isolated Network EG standards include STNW3514 and STNW3515.

The main differences between the main grid and Isolated Network EG standards include:

- Isolated Networks have limited capacity to host solar PV. These limits are published and regularly updated on the Isolated Networks Solar Capacity Page. If the Unmanaged Hosting Capacity has been reached, customers may apply for a dynamic connection — if supported by the relevant network. If dynamic connections aren't supported, customers can still installed embedded generation with Output Smoothing and a fixed export limit, as outlined in Appendix H.
- Requirements for fixed export and dynamic connections are merged into single Standards. The Proponent is to use the sections of the Standard relevant to their connection.
- Output Smoothing has been defined in Appendix H in both standards with ramp rates slightly changed to align with those of Horizon Power.

- Site Generation Limits and Site Load Limits have been introduced for dynamic connections (these limits are already supported by CSIP-AUS). These are in addition to Export and Import limits.
- The fixed default dynamic export limit is lower in the case of dynamic connections:
- For dynamic connections the dynamic forecasts require:
    - A higher frequency of communication (1-minute poll and post rates)
    - High data resolution (30-second intervals)
    - Forecasts only for the next quarter hour
    - Extra data types (to support Site Generation Limit and Site Load Limit).
- Isolated Network SEP2 integration provider shall be selected from the Ergon Energy Network list of Isolated Network compliant providers.

If an Isolated Network has run out of Unmanaged Hosting Capacity, will I still be able to install EG with Output Smoothing?

Only if the relevant Isolated Network:

- has had its Unmanaged Hosting Capacity exhausted; and
- does not yet support dynamic connections.

Both can be checked on the Isolated Networks Solar Capacity Page.

Once an Isolated Network supports dynamic connections, the option for Output Smoothing will no longer be offered for EG connecting to that Isolated Network.

Will a Technical Study be required?

Yes. All embedded generation (EG) connections to Isolated Networks require a Technical Study. Additionally, under STNW3515, a Technical Study may also be required for inverter energy systems (IES) to include fault and protection grading studies depending on the Isolated Network

What type of connection offer applies to Isolated Networks?

All connections to Isolated Networks are classified as *negotiated connections*.

If I have a valid contract in place before 1 October 2025, can I still install a system to the previous requirements?

Yes, provided that the terms and conditions of the contract are met, including any relevant timeframes

Can I install a system to the new STNW3514 or STNW3515 requirements prior to 1 October 2025?

Prior approval from Ergon Energy Network approval will be required which you can request in the *Notes* section of your connection application form when submitting via our Electrical Contractor's Portal.