Special Issue: >30 kW to 1,500 kW LV Connection Standard

Our new standard means more efficient large connections

Following significant industry consultation, Ergon Energy and Energex have now released a joint standard for use in connecting embedded generating systems above 30 kW up to 1,500 kW to their low voltage (LV) distribution networks. For these LV connections, this standard supersedes the Standard for Connection of Embedded Generating Systems 5MW and below in the Ergon Energy Distribution Network - STNW1165, and Energex’s corresponding standard (refer further below in this Update for information on HV connections).

The standard, developed collaboratively with the PV industry, delivers streamlined, current technical requirements for connecting both inverter energy systems and rotating machines. The industry benefits from the joint standard by creating one set of requirements for Queensland.

The standard will come into force on 15 September 2017.

From that day, all new applications for the connection of relevant embedded generating systems will be required to meet the new standard. The standard is now available on both the Ergon Energy and Energex websites to give designers, engineers and installers time to become familiar with the requirements.

Key changes to the standard

The new standard is streamlined, with less repetition and the removal of content that was informative rather than a requirement. It clearly separates requirements for inverter energy systems and rotating machinery where they differ.

Key changes include:

- Zero (minimal) export limitations for inverter energy systems rated greater than 30 kW to 1,500 kW no longer require a reverse power relay. In addition, the power limiting control functionality is more favourable, i.e. disconnection is only required after exceeding the power limit for more than 15 seconds, up from 2 seconds.
- All inverters must now be AS/NZS 4777.2:2015 and IEC 62116 (edition 2) certified.
- The requirement for Neutral Voltage Displacement (NVD) protection has been removed for partial or full exporting inverter energy systems and standby rotating machines (30 kW – 1,500 kW).

We encourage all industry members to read the new standard in readiness for the standard coming into effect on 15 September 2017. This will help to enhance the services and knowledge you can provide to your customers and to ensure you maintain compliance with the requirements.
If there’s anything in the new standard that’s not clear or you have other questions, please email us at or contact the Major Customer Group.

**Lodging new applications**

Enquiries or applications for embedded generators > 30 kW are submitted to the Major Customer Group. Prior to the implementation of the new connection standards for embedded generators > 30 kW to 1,500 kW (LV), our enquiry and application forms will be updated to reflect the technical changes and the information required to be submitted with these forms.

If you wish to submit a new application that complies with the new standard, we encourage you to wait until 15 September 2017 to do this.

If however you wish to submit your application to us before 15 September, the technical requirements and obligations set out in the *Standard for Connection of Embedded Generating Systems 5MW and below in the Ergon Energy Distribution Network - STNW1165* will apply to that application.

**Status of applications under way**

We will be contacting customers with current applications shortly to discuss our transitional arrangements. You can also email our Major Customer Group for more information about the new standard and your application.

**Thanks for your input**

We appreciated receiving more than 100 items of feedback from industry members on the draft version of the *Standard for Connection of Embedded Generating Systems (>30 kW to 1,500 kW) to a Distributor’s LV Network - STNW1174*. The feedback covered protection, isolation, wireless tripping, reactive power control options and general wording for clarity.

We have incorporated most of the feedback and identified other aspects for consideration for subsequent versions.

**Connecting an embedded generating system at a HV connection point**

Our existing *Standard for Connection of Embedded Generating Systems 5 MW and below in the Ergon Energy Distribution Network* still applies for the connection of an embedded generating system at a HV connection point. Ergon Energy and Energex are progressing a draft joint *Standard for Connection of Embedded Generating Systems (>30 kW to 5 MW) to a Distributor’s HV Network* and expect to release it for industry feedback in the coming months.

If there’s anything in the new standard that’s not clear to you or you have other questions, please email us.

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