



Bosch Combined Heat and Power Modules

G59 Frequently Asked Questions

What is G59 and why do you need it?

G59 is a set of specifications and parameters set out by the “Energy Networks Association” that ensure an electricity generator will generate electricity in a manner that is safe and compatible with the electricity network or national grid.

The G59 parameters/settings currently known as “G59/3” are programmed into a special device called a “G59 protection relay” which has the ability to disconnect the CHP unit from the national grid in the event of a power cut or fault on the network.

Any generator rated above 16 Amps per phase and connected to the national grid must be fitted with a G59 relay and comply with G59/3 parameters.

What is a “G59 Parallel Running Agreement”?

A G59 Parallel Running Agreement is a document which permits the operator of an electricity generator to generate electricity **in parallel** with the national grid via a DNO (District Network Operator) i.e. the generator is generating whilst connected directly to the grid. This agreement is needed regardless of whether or not the generator will export electricity.

How long does the G59 process take?

- Once a G59 Application has been submitted the DNO has **up to 45 working days** to send out the results of their network study and provide a formal quotation for any fees required
- If the DNO requests a G59 witness test, this will have to be booked following payment of any fees listed on their quotation. They typically attend the site for a witness test within a few weeks of notice, however there is no set notice period and they may have limited availability of staff so it is good practice to book well in advance.

What is a G59 witness test?

Often the DNO will wish to see proof of G59/3 compliance in the form of a witness test. This involves a representative of the DNO attending site and observing the testing of the G59 relay.

The test involves simulating potential anomalies in the grid supply and observing how the G59 relay reacts. Upon completion of a successful test, the DNO will then allow the CHP to run unattended.

Process for obtaining a parallel running agreement:

1. Details about the generation scheme retrieved from the client/end user
2. G59 application is prepared and submitted to DNO
3. The DNO will respond with a letter or email of acknowledgement with a reference number
4. DNO performs a network study to determine effects of adding new generation to the network
5. DNO determines if a G59 witness test is needed and submits a quotation for fees involved
6. Fees are paid by the client if required
7. Arrangements are made for a witness test if needed
8. A parallel running agreement is sent out for signing by the end user
9. Upon return of the parallel running agreement and successful G59 witness test (if required) the CHP unit is signed off and can now operate unattended indefinitely.

For detailed and up-to-date information on the G59 and distributed generation in general please visit:

www.energynetworks.org/electricity/engineering/distributed-generation/distributed-generation.html

Please ensure your client or end user is fully aware and periodically reminded that:

- The DNO then has up to 45 working days to process the application before producing a quotation
- Following receipt of a quotation the client/end user will need to pay any fees required by the DNO before progressing with a G59/3 test and signing off the parallel running agreement
- Bosch Thermotechnology Ltd. do not have any influence on the fees quoted by the DNO. These fees may vary depending on if network upgrades are needed to accommodate the new generation
- If the DNO requests that a G59/3 witness test is required, there will need to be arrangements made for a representative of the DNO, a G59 test engineer and a Bosch CHP engineer to attend site together
- The CHP unit should ideally be successfully pre-commissioned to a ready-to-run state prior to arranging a G59 witness test as a failed G59 witness test can be costly
- Formal quotations from the DNO are valid for a period of 3 calendar months from the date of issue unless otherwise stated.

