CLAIMS

1. A grid interconnection system for photovoltaic (PV) generators comprising:
at least one automatic switch breaker disposed on an electrical connection between a grid supply point and the output of at least one PV generator; and
a pilot cable connection for connection of a pilot cable to an automatic AC disconnector on an inverter of the at least one PV generator, wherein the pilot cable connection is disposed such that a waveform of a grid supply is detectable irrespective of the state of the at least one automatic switch breaker;
wherein the at least one automatic switch breaker is configured to cut the electrical connection between the at least one PV generator and the grid supply point based on the detected waveform; and
wherein the pilot cable is connected to respective synchronizing relays of the at least one PV generators.

2. The system as claimed in claim 1, further comprising at least one manual switch breaker disposed between the grid supply point and the at least one PV generator, for manual cutting of the electrical connection between the at least one PV generator and the grid supply point.

3. The system as claimed in claims 1 or 2, wherein the grid supply point comprises a power grid cable connection.

4. The system as claimed in claims 1 or 2, wherein the grid supply point comprises an over ground electrical box connection.

5. The system as claimed in claims 1 or 2, wherein the grid supply point comprises a low tension main board connection.

6. The system as claimed in claims 1 or 2, wherein the grid supply point comprises a high tension power switchgear component connection.

7. The system as claimed in claim 6, further comprising a transformer disposed between the high tension power switchgear component connection and the automatic switch breaker.

8. The system as claimed in any one of the preceding claims, configured such that when a power grid failure or shut-down is detected based on the waveform, the automatic switch breaker and the automatic AC disconnector cut the connection between the at least one PV generator and the grid supply point.

9. The system as claimed in any one of the preceding claims, configured such that when resumption of grid supply is detected based on the waveform, the automatic switch breaker and

the automatic AC disconnector close the connection between the at least one PV generator and the grid supply point.

10. A grid interconnection method for photovoltaic (PV) generators, the method comprising:

providing at least one automatic switch breaker disposed on an electrical connection between a grid supply point and the output of at least one PV generator;

providing a pilot cable connection for connection of a pilot cable to an automatic AC disconnector on an inverter of the at least one PV generator, wherein the pilot cable connection is disposed such that a waveform of a grid supply is detectable irrespective of the state of the at least one automatic switch breaker;

wherein the at least one automatic switch breaker is configured to cut the electrical connection between the at least one PV generator and the grid supply point based on the detected waveform; and

comprising connecting the pilot cable to respective synchronizing relays of the at least one PV generators.

11. The method as claimed in claim 10, further comprising providing at least one manual switch breaker disposed between the grid supply point and the at least one PV generator, for manual cutting of the electrical connection between the at least one PV generator and the grid supply point.

12. The method as claimed in claims 10 or 11, wherein the grid supply point comprises a power grid cable connection.

13. The method as claimed in claims 10 or 11, wherein the grid supply point comprises an over ground electrical box connection.

14. The method as claimed in claims 10 or 11, wherein the grid supply point comprises a low tension main board connection.

15. The method as claimed in claims 10 or 11, wherein the grid supply point comprises a high tension power switchgear component connection.

16. The method as claimed in claim 15, further comprising providing a transformer disposed between the high tension power switchgear component connection and the automatic switch breaker.

17. The method as claimed in any one of claims 10 to 16, comprising, when a power grid failure or shut-down is detected based on the waveform, using the automatic switch breaker and the automatic AC disconnector to cut the connection between the at least one PV generator and the grid supply point.

18. The method as claimed in any one of claims 10 to 17, comprising, resumption of grid supply is detected based on the waveform, using the automatic switch breaker and the automatic AC disconnector to close the connection between the at least one PV generator and the grid supply point.