



Comply with local requirements for the grid connection of photovoltaic systems worldwide

ENERGY

GRID CODE COMPLIANCE

Does your solar PV plant fit the grid? We offer independent verification of grid compatibility for inverters and photovoltaic power plants.

Modern photovoltaic power plants and their single units (solar PV inverters) are able to support the electrical grid during both electrical faults in the system and also during normal operation. An independent verification of inverters and PV plants for electrical grid connection is often required by law, investors, operators, owners and the system operator. We offer such services of Grid Code Compliance (GCC) and we are accredited by the German accreditation body DAkkS, VDE FNN and by FGW.

In some countries system operators are required to establish evidence that solar PV inverters are compatible with the requirements of their Grid Codes in order to be connected to the grid. In most countries the grid code requires compliance of the whole photovoltaic power plant. In this case, types of solar PV inverters can show GCC by defining assumptions which have to be implemented on photovoltaic power plant level.

Showing compliance with Grid Codes can be best achieved by certification. This will be done in two steps:

- A type of a solar PV inverter will get a Type Certificate based on one or more Grid Codes according to the relevant certification procedure or according to our maximum capability approach.
- A site specific Project Certificate will be issued for each photovoltaic power plant, based on site specific data, the maximum capability approach or the Type Certificate.

Now new level of confidence possible:

By choosing GCC-Class I for certification, the certificate will be approved by the system operator. If certification shall be based on the standard approach using the grid code as a basis GCC-Class II is sufficient.

GCC-Services for solar PV inverters

Solar PV inverter manufacturers rely on independent verification as part of their recognition and approval procedures. As an independent certification body, we at DNV GL assess whether solar PV inverters meet the grid code requirements related to security, national law and connection agreements. We issue Certification Reports, Statements or even Type Certificates and Equipment Certificates for GCC.

GCC -Services for PV power plants

Our GCC-services provide objective evidence, in order to secure investment and the reliability of grid connection planning. Photovoltaic Power Plant design for reactive power should be verified independently. For this the Project Certificate is offered based on the grid connection requirements valid at the site the PV plant is located. Selling electrical power requires an operational grid connection including the power purchase agreement with the system operator. In order to obtain the power purchase agreement, grid code compliance has to be provided to the system operator.

Our intention is to facilitate the process of power purchase agreement and Grid Code Compliance (GCC) for all parties involved by offering such services saving valuable resources.



ABOUT DNV GL

DNV GL - 30 Years of Global Experience

Our services are provided by a team of highly skilled experts with many years of experience. They combine in-depth technical knowledge in all areas of renewable energy with an intimate understanding of the energy business. Throughout the past 30 years we have developed numerous guidelines, standards and recommended practices. Continuous practices and further development is part of our daily business.

In the energy industry

DNV GL delivers world-renowned testing and advisory services to the energy value chain including renewables and energy efficiency. Our expertise spans onshore and offshore wind power, solar, conventional generation, transmission and distribution, smart grids, and sustainable energy use, as well as energy markets and regulations. Our energy experts support clients around the globe in delivering a safe, reliable, efficient, and sustainable energy supply. Our testing, certification and advisory services are delivered independent from each other.

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