

#### **Explanation:**

Unit Generating unit, for example wind turbines, photovoltaic inverters or

combined heat and power plants (CHP)

Plant Generating plant, consisting of one or more units connected to the

same PCC (Point of Common Coupling)

TG Technical Guideline of the FGW e.V. (Fördergesellschaft Windenergie

und andere Erneuerbare Energien)

# 1.) To issue a <u>prototype confirmation</u> we need the following documents and information:

#### 1. Step: Preliminary Prototype confirmation

- Information and address of the prospective certificate holder (normally the manufacturer)
- Manufacturer declaration acc. to chapter 12 of VDE-AR-N 4110 / 4120 / 4130

### 2. Step: Prototype confirmation

- For unit prototype: Commissioning protocol E.10 of the first prototype
- For component prototypes: Manufacturer declaration with the commissioning date of the first prototype of the component

#### 2.) For the model validation we need the following documents and information:

- Information and address of the prospective certificate holder (normally the manufacturer)
- Complete test report of the electrical characteristics according to TG3 from the measuring institute accredited to EN17025
- Measuring results (raw data) according to TG3 for the validation of the simulation model respectively prepared raw data including a manufacturer declaration for non-modification of the raw data
- Executable decrypted and encrypted simulation models of the unit in DlgSILENT Power Factory or MATLAB Simulink/SimPowerSystems including the documentation and model description. According to VDE-AR-N 4110, the model must be designed as an effective value model (RMS). In the context of the model documentation a statement of the manufacturer about the limits of validity (chapter 3.2.1 and 3.6 FGW TR4) is necessary
- Manufacturer's declaration that plausibility tests for typical plant configurations according to chapter 5.5.1 or 5.5.3 of FGW TR 4 have been carried out by the manufacturer (including reference to the Md5 checksum of the model)
- According to FGW TR4 chapter 5.5.2, an OVRT test must be selected by the manufacturer,
  which is checked in addition to the other plausibility tests
- Optional: Manufacturer's declaration according to chapter 5.5.2.2. of FGW TR 4 that the unit model is functional within the limits of the grid connection guidelines. Alternatively, the tests according to the above chapter are performed



### 3.) To issue a <u>unit certificate</u> we need the following documents and information:

- Information and address of the prospective certificate holder (normally the manufacturer)
- Documents relevant for assessment (for example technical documentations, descriptions, data sheets, manufacturer declaration)
- List of Parameters acc. to Annex J of TG3
- Specification of the guidelines the certificate should be issued for
- Certificate according to DIN EN ISO 9001 for the manufacturing of units including a declaration of the maintenance for the period of validity of the unit certificate to be issued
- Certificate of the measuring institute according to EN17025 for the duration of the measurements
- Complete test report of the electrical properties according to TG3 from the measuring institute accredited to EN17025
- Complete validation report if the validation of the simulation model is done by another company than ABE
- Executable decrypted and encrypted simulation model of the unit in DIgSILENT Power
  Factory or MATLAB Simulink/SimPowerSystems including the documentation and model description
- If any certified component has to be integrated into the unit certificate, the valid component certificate including the test report, manufacturer declaration and if applicable validated simulation model are required

# 4.) To issue a <u>component certificate</u> we need the following documents and information:

- Information and address of the prospective certificate holder (normally the manufacturer)
- Specification, which functions of the component should be certified
- Technical documentation and description of the component
- List of Parameters acc. to Annex J of TG3
- Specification of the guidelines the certificate should be issued for
- Certificate according to DIN EN ISO 9001 for the manufacturing of components including a declaration of the maintenance for the period of validity of the component certificate to be issued
- Certificate of the measuring institute according to EN17025 for the duration of the measurements
- Complete test report of the electrical properties according to TG3 from the measuring institute accredited to EN17025

## ABE 42 EN (3) Required documents for equipment certificates and prototype confirmations





- If any certified component has to be integrated into the component certificate, the valid component certificate including the test report, manufacturer declaration and if applicable validated simulation model are required
- Measuring results (raw data) according to TG3 for the validation of the simulation model respectively prepared raw data including a manufacturer declaration for non-modification of the raw data
- Complete validation report, if the validation of the simulation model is done by another company than ABE
- Executable decrypted and encrypted simulation model of the unit in DIgSILENT Power
  Factory or MATLAB Simulink/SimPowerSystems including the documentation and model description

ABE Zertifizierung GmbH is committed to use the information confidentially.

The information and documents can be submitted by post, fax or E-Mail to the following contact:

#### **ABE Zertifizierung GmbH**

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Thank you for your efforts. **ABE Zertifizierung GmbH** 

