



## Questionnaire on Off-grid System Dimensioning

### General Data

|                               |  |
|-------------------------------|--|
| <b>Project</b> _____          | <input type="checkbox"/> New plant                     |
| <b>Customer</b> _____         | <input type="checkbox"/> Refurbishment                 |
| <b>Delivery address</b> _____ | <input type="checkbox"/> Commissioning by SMA required |
| <b>E-Mail</b> _____           | Delivery date ____ / ____ (kW/Year)                    |

### Site and Plant Data

|                              |                     |                       |            |
|------------------------------|---------------------|-----------------------|------------|
| <b>Country</b>               | _____               |                       |            |
| <b>City</b>                  | _____               |                       |            |
| <b>Environmental Factors</b> | solar irradiation   | KWh/m <sup>2</sup> /a |            |
|                              | Wind speed medium   | m/s                   |            |
|                              | Ambient temperature | °C min.               | °C maximal |
|                              | Altitude            | m ü. NN               |            |

### Electric data

|                                      |  |    |                                      |  |
|--------------------------------------|--|----|--------------------------------------|--|
| <b>Grid</b>                          | Voltage: VAC   | Hz | <input type="checkbox"/> Island grid | <input type="checkbox"/> Utility backup* |
|                                      | Frequency  |    | <input type="checkbox"/> 1-phase     | <input type="checkbox"/> 3-phase         |
| <b>Battery</b>                       | Voltage: <input type="checkbox"/> 24 V <input type="checkbox"/> 48V <input type="checkbox"/> 60V   |    |                                      |  |
|                                      | Size: Ah or Autonomy time  |    | h                                    |  |
| <b>Grid feeding systems</b>          | <input type="checkbox"/> Diesel <input type="checkbox"/> PV <input type="checkbox"/> Wind <input type="checkbox"/> CHP <input type="checkbox"/> Others |    |                                      |  |
| <b>Type of connection of PV/Wind</b> | <input type="checkbox"/> AC-or <input type="checkbox"/> DC-coupled   |    |                                      |  |
| <b>Communication</b>                 | <input type="checkbox"/> Remote access via <input type="checkbox"/> Modem <input type="checkbox"/> GSM <input type="checkbox"/> RS485                  |    |                                      |  |

### Loads / Consumption

|                     | daily | summer | winter | yearly |
|---------------------|-------|--------|--------|--------|
| <b>Energy</b>       | kWh/d | kWh/d  | kWh/d  | kWh/a  |
| <b>Nominal load</b> | kW    | kW     | kW     | kW     |
| <b>Maximum load</b> | kW    | kW     | kW     | kW     |
| <b>Minimum load</b> | kW    | kW     | kW     | kW     |

**Others** Are there consumers with special requirements? (e.g.: high starting currents)

\*Please enclose drawing, if possible.  
 Required minimum entries are grayed.



**Grid Feeding Systems**

**Diesel generator**  existing  new

Manufacturer  
 Type  synchronous  asynchronous  
 Power kVA  
 Voltage V  
 Current A

**Photovoltaics**  existing  new

Manufacturer  
 Total power kWp  
 Voltage V

Type

**Wind power plant**  existing  new

Manufacturer  
 Type  synchronous  asynchronous  
 Power kVA  
 Voltage V  
 Current A  
 Control Frequency  electronic  mechanical  
 Voltage  electronic  none  
 Grid forming  yes  no

**CHP**  existing  new

Manufacturer  
 Type  synchronous  asynchronous  
 Power kVA<sub>el</sub> / kW<sub>th</sub>  
 Voltage V  
 Current A  
 Control Frequency  electronic  mechanical  
 Voltage  electronic  none

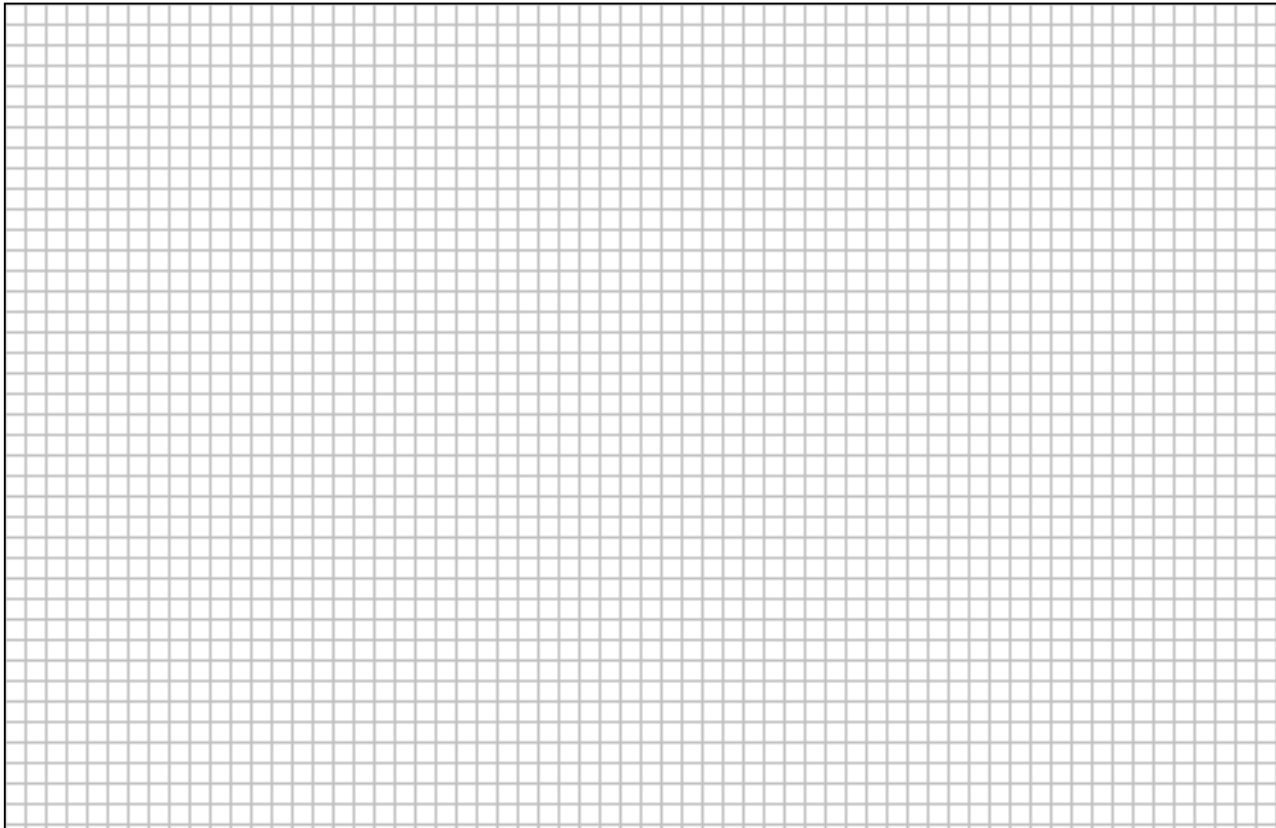
**Other**  existing  new

Type (e.g. water turbine)  
 Manufacturer  
 Type  synchronous  asynchronous  
 Power kVA  
 Voltage V  
 Current A  
 Control Frequency  electronic  mechanical  
 Voltage  electronic  none  
 Grid forming  yes  no

**Comments**

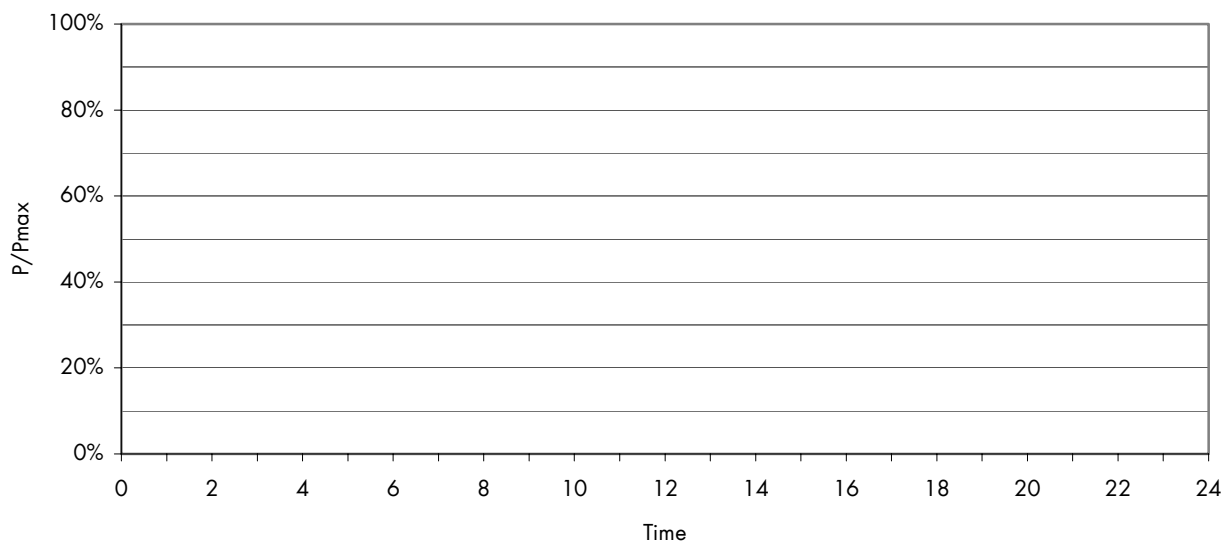
### Appendix

as to 2: Plant data  
Drawing / Block Circuit Diagram



as to 3: Loads / Consumption

typical daily load curve  
(in case of different consumption in summer / winter please draw two curves)



Pmax: kW