## STATEMENT FOR MICRO-PRODUCTION CONNECTION

The following micro-production facilities are undersigned to connect to existing orders.

Applicant:	
Name:	
Address:	
Telephone:	
Installer:	
Name:	
Name: Address:	
Name: Address: Telephone:	
Name: Address: Telephone: E-mail:	

## Installation Data:

Power Type:	Solar	□Wind	□Water	Bioindustries
Facility Model:	SH8.ORT			
Capacity:	8kVA/kW			
Efficiency:	Max.98,4%			
Max. AC current:	12,1A			
Type-Examination:	Yes	□No		

**Protective Parameters:** 

Power Protection Settings (found in the inverter typ-testing- protocol)			Set value		Recommended value*		
			Time	Level	Time	Level	
Over voltage (step 2)			60 s	255,3 V	60 s	253 V	
Over voltage (step 1)			0,2 s	264,5 V	0,2 s	264,5 V	
Under voltage			0,2 s	195,5 V	0,2 s	195,5 V	
Over Frequency			0,5 s	52 Hz	0,5 s	51,5 Hz	
Under Frequency			0,5 s	47 Hz	0,5 s	47,5 Hz	
Protection against unwanted island operation			2 s		0,15 s		
Power quality values Value		Recommen	ided limit				
Flicker values	Pst	<0,35	0,35		Flicker calculated		
max 16 A	Pit	<0,25	0,25		EN 61000-3-3		
Flicker values	Pst	<0,35	0,35		Flicker calculated		
> 16 A	Plt	<0,25	0,	25	according to:		

				EN	6100	0-3-3	
				EN	6100	0-3-11	
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 Pay attention that, the recommended values are according to EnergiForetagen 2021 requirements.

## Frequency Response Settings

Items	Yes/No	Reference
Can the system remain connected within the following		EIFS 2018:2
frequency range:		3rd chptr §1
At least 30 minutes within the frequency range 47.5 - 48.5 Hz?	Y	
At least 30 minutes within the frequency range 48.5 - 49.0 Hz?	Y	
Unlimited in frequency range 49.0 - 51.0 Hz?	Y	
At least 30 minutes within the frequency range 51.0 - 51.5 Hz?	Y	
Does the facility meet the requirement to remain connected to the network and operate at frequency change rates up to 2.0 Hz / s? <sup>1</sup>	Y	EIFS 2018:2 3rd chptr §2
Can the plant reduce its active power output when frequency exceeds 50.5 Hz?	Y	EIFS 2018:2 3rd chptr §3
Does the plant meet the statistic factor <sup>2</sup> requirement of 8%?	Y	EIFS 2018:2 3rd chptr §4
Reduced output power from the system by maximum 3.0 percent per Hz at frequencies lower than 49.0 Hz?	Y	EIFS 2018:2 3rd chptr §7
Automatic reconnection of the system takes place only within frequency range 47.5 - 50.1 Hz	Y	EIFS 2018:2 3rd chptr §8
If yes to the above, certify that connection is made first when the network frequency has been within this range continuous for at least 3 minutes?	Y	EIFS 2018:2 3rd chptr §8
The plant meets the requirement for an increase in output active power at automatic connection according to:		EIFS 2018:2 3rd chptr §9
<49.9 Hz - Increased rate of output active power not limited	Y	
49.9-50.1 Hz - Increased rate of output active power is maximum 10 percent of rated output per minute	Y	
> 50.1 Hz - Increase of output active power does not occur	Y	
	Value	
Enter the lowest active power output (in kW) that the plant can be controlled down to over frequency	3	EIFS 2018:2 3rd chptr §5

<sup>1</sup> The value of the frequency change rate should be measured at the connection point and calculated over a period of 0.5 s.

<sup>2</sup> The statistic factor is the ratio between a frequency change and the change in output power expressed as a percentage. The frequency change is expressed as a ratio between current frequency and nominal frequency. The output power is expressed as a ratio between rated power and output power at over-frequency on the grid. At control of output power due to over-frequency, the static factor is calculated based on the installed power of the system. According to section 6 of EIFS 2018: 2.

It is hereby certified that the above information is correct:

		Same
Signature	Printed name	SUNGROW
		Company
City	Date	

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