

## ANNEX I

### Frequency ranges and time periods referred to in Article 12(1)

<b>Synchronous area</b>	<b>Frequency range</b>	<b>Time period for operation</b>
<b>Continental Europe</b>	47,5 Hz-48,5 Hz	To be specified by each TSO, but not less than 30 minutes
	48,5 Hz-49,0 Hz	To be specified by each TSO, but not less than the period for 47,5 Hz-48,5 Hz
	49,0 Hz-51,0 Hz	Unlimited
	51,0 Hz-51,5 Hz	30 minutes
<b>Nordic</b>	47,5 Hz-48,5 Hz	30 minutes
	48,5 Hz-49,0 Hz	To be specified by each TSO, but not less than 30 minutes
	49,0 Hz-51,0 Hz	Unlimited
	51,0 Hz-51,5 Hz	30 minutes
<b>Great Britain</b>	47,0 Hz-47,5 Hz	20 seconds
	47,5 Hz-48,5 Hz	90 minutes
	48,5 Hz-49,0 Hz	To be specified by each TSO, but not less than 90 minutes
	49,0 Hz-51,0 Hz	Unlimited
	51,0 Hz-51,5 Hz	90 minutes
	51,5 Hz-52,0 Hz	15 minutes
<b>Ireland and Northern Ireland</b>	47,5 Hz-48,5 Hz	90 minutes
	48,5 Hz-49,0 Hz	To be specified by each TSO, but not less than 90 minutes
	49,0 Hz-51,0 Hz	Unlimited
	51,0 Hz-51,5 Hz	90 minutes
<b>Baltic</b>	47,5 Hz-48,5 Hz	To be specified by each TSO, but not less than 30 minutes
	48,5 Hz-49,0 Hz	To be specified by each TSO, but not less than the period for 47,5 Hz-48,5 Hz
	49,0 Hz-51,0 Hz	Unlimited
	51,0 Hz-51,5 Hz	To be specified by each TSO, but not less than 30 minutes

The table shows the minimum time periods for which a transmission-connected demand facility, a transmission-connected distribution facility or a distribution system has to be capable of

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*Status: This is the original version (as it was originally adopted).*

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operating on different frequencies, deviating from a nominal value, without disconnecting from the network.

## ANNEX II

**Voltage ranges and time periods referred to in Article 13(1)**

<b>Synchronous area</b>	<b>Voltage range</b>	<b>Time period for operation</b>
<b>Continental Europe</b>	0,90 pu-1,118 pu	Unlimited
	1,118 pu-1,15 pu	To be specified by each TSO but not less than 20 minutes and not more than 60 minutes
<b>Nordic</b>	0,90 pu-1,05 pu	Unlimited
	1,05 pu-1,10 pu	60 minutes
<b>Great Britain</b>	0,90 pu-1,10 pu	Unlimited
<b>Ireland and Northern Ireland</b>	0,90 pu-1,118 pu	Unlimited
<b>Baltic</b>	0,90 pu-1,118 pu	Unlimited
	1,118 pu-1,15 pu	20 minutes

The table shows the minimum time periods during which a transmission-connected demand facility, a transmission-connected distribution facility or a transmission-connected distribution system has to be capable of operating for voltages deviating from the reference 1 pu value at the connection point without disconnecting from the network where the voltage base for pu values is at or above 110 kV and up to (not including) 300 kV.

<b>Synchronous area</b>	<b>Voltage range</b>	<b>Time period for operation</b>
<b>Continental Europe</b>	0,90 pu-1,05 pu	Unlimited
	1,05 pu-1,10 pu	To be specified by each TSO but not less than 20 minutes and not more than 60 minutes
<b>Nordic</b>	0,90 pu-1,05 pu	Unlimited
	1,05 pu-1,10 pu	To be specified by each TSO but not more than 60 minutes
<b>Great Britain</b>	0,90 pu-1,05 pu	Unlimited
	1,05 pu-1,10 pu	15 minutes
<b>Ireland and Northern Ireland</b>	0,90 pu-1,05 pu	Unlimited
<b>Baltic</b>	0,90 pu-1,097 pu	Unlimited
	1,097 pu-1,15 pu	20 minutes

The table shows the minimum time periods during which a transmission-connected demand facility, a transmission-connected distribution facility or a transmission-connected distribution system has to be capable of operating for voltages deviating from the reference 1 pu value at the connection point without disconnecting from the network, where the voltage base for pu values is from 300 kV to 400 kV (including).