

ANNEX I

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

Synchronous area	Frequency range	Time period for operation
Continental Europe	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
Nordic	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
Great Britain	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
Ireland and Northern Ireland	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
Baltic	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

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

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)

Synchronous area	Voltage range	Time period for operation
Continental Europe	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
Nordic	0,90 pu-1,05 pu	Unlimited
	1,05 pu-1,10 pu	60 minutes
Great Britain	0,90 pu-1,10 pu	Unlimited
Ireland and Northern Ireland	0,90 pu-1,118 pu	Unlimited
Baltic	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.

Synchronous area	Voltage range	Time period for operation
Continental Europe	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
Nordic	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
Great Britain	0,90 pu-1,05 pu	Unlimited
	1,05 pu-1,10 pu	15 minutes
Ireland and Northern Ireland	0,90 pu-1,05 pu	Unlimited
Baltic	0,90 pu-1,097 pu	Unlimited
	1,097 pu-1,15 pu	20 minutes

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

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).