

**Grid Code
Modification Proposal Form**

Email to gridcode@eirgrid.com



Title of Modification Proposal:

MPID 297 – Correction of RfG and Non-RfG PPM Frequency Periods

MPID (EirGrid Use Only): 297

Date:	14 October 2021		
Company Name:	EirGrid		
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Grid Code Version:	9		
Grid Code Section(s) Impacted by Modification Proposal:	PPM1.5.1 Transmission System Frequency Ranges		

Modification Proposal Justification:

The purpose of this modification is to correct an error in PPM1.5.1.

Background:

On the 17 May 2016, the Commission Regulation (EU) 2016/631 establishing a network code on requirements for grid connection of generators (hereafter known as “RfG”) entered into force. On 21 March 2019 a proposal for the incorporation of RfG requirements into the Grid Code, under modification MPID 275, was brought to the Grid Code Review Panel (GCRP) and recommended for submission to the Commission for the Regulation of Utilities (CRU). On 14 June 2019 the CRU approved MPID 275 and the requirements within were published in Grid Code version 8. All associated modification proposals, demarcation information, recommendation and approval documents can be found on EirGrid’s Modification webpage, link [here](#).

The frequency ranges over which a Generator must remain connected to the transmission system are described in CC.7.3.1.1(a), (b), (c), (w) and duplicated specifically for PPMs in PPM1.5.1(a), (b), (c). It was brought to our attention that the RfG PPM frequency ranges were not correctly integrated into PPM1.5.1. This modification proposes to align PPM1.5.1(a), (b) and (c) with the non-RfG requirements described in CC.7.3.1.1 (a), (b) and (c) and RfG requirements described in CC.7.3.1.1(w).

Red-line Version of Impacted Grid Code Section(s) - show proposed changes to text:

Deleted text in ~~strike-through~~ red font and new text highlighted in blue font

PPM1.5.1 **Controllable PPMs** shall have the capability to:



- (a) operate continuously at normal rated output at **Transmission System Frequencies** in the range 49.5 Hz to 50.5 Hz;
- (b) remain connected to the **Transmission System** at **Transmission System Frequencies** within the range 47.5 Hz to 52.0 Hz for a duration of 60 minutes;
- (c) remain connected to the **Transmission System** at **Transmission System Frequencies** within the range 47.0 Hz to 47.5 Hz for a duration of 20 seconds required each time the **Transmission System Frequency** is below 47.5 Hz;

(d)



- (i) remain connected to the **Transmission System** during rate of change of **Transmission System Frequency** of values up to and including 0.5 Hz per second.



- (ii) remain connected to the **Transmission System** for a **Rate of Change of Frequency** up to and including 1 Hz per second as measured over a rolling 500 milliseconds period. **Voltage** dips may cause localised **ROCOF** values in excess of 1 Hz per second for short periods, and in these cases, the **Fault-Ride Through** clause PPM1.4.2(f) supersedes this clause. For the avoidance of doubt, this requirement relates to the capabilities of **Controllable PPMs** only, and does not impose the need for **Rate of Change of Frequency** protection nor does it impose a specific setting for anti-islanding or loss-of-mains protection relays.

No additional **Generation Unit** shall be started while the **Transmission System Frequency** is above 50.2 Hz.

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(e) Remain synchronised to the **Transmission System** and operate within the frequency ranges and time periods specified in *Table PPM1.5.1(e)*.

Table PPM 1.5.1(e): Minimum Time Periods for Generation Units to Remain Operational without Disconnecting

Frequency Range	Time Period
47 – 47.5 Hz	20 seconds
47.5 – 48.5 Hz	90 minutes
48.5 – 49 Hz	90 minutes
49 – 51 Hz	Unlimited
51 – 51.5 Hz	90 minutes
51.5 – 52 Hz	60 minutes

Green-line Version of Impacted Grid Code Section(s) - show proposed final text:

PPM1.5.1 **Controllable PPMs** shall have the capability to:



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- (b) remain connected to the **Transmission System** at **Transmission System Frequencies** within the range 47.5 Hz to 52.0 Hz for a duration of 60 minutes;
- (c) remain connected to the **Transmission System** at **Transmission System Frequencies** within the range 47.0 Hz to 47.5 Hz for a duration of 20 seconds required each time the **Transmission System Frequency** is below 47.5 Hz;

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