Grid Code Modification Proposal Form

Email to gridcode@eirgrid.com

Title of Modification Proposal: Correction of 220kV P/Q graph for remote-end Interconnector Converter Stations

MPID (EirGrid Use Only): 302

Date:	24/10/2022		
Company Name:	EirGrid		
Applicant Name:	Niamh Daly		
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Grid Code Version:	Version 11		
Grid Code Section(s) Impacted by Modification Proposal:	CC.7.5.10 (f)		

Modification Proposal Justification:

The purpose of this Grid Code modification proposal is to correct an error in clause CC.7.5.10 (f).

The graphs within clause CC.7.5.10(f) show a maximum voltage withstand capability of 1.118p.u. for connections at 110 kV and at 220 kV. In the case of 220 kV, this would require equipment to have the capability to continually withstand 246.4 kV. As per clause CC.8.3.2, the maximum transmission system voltages during a transmission fault for 220 kV are nominally 245 kV. This equates to an upper voltage limit of 1.114p.u. for 220 kV transmission systems.

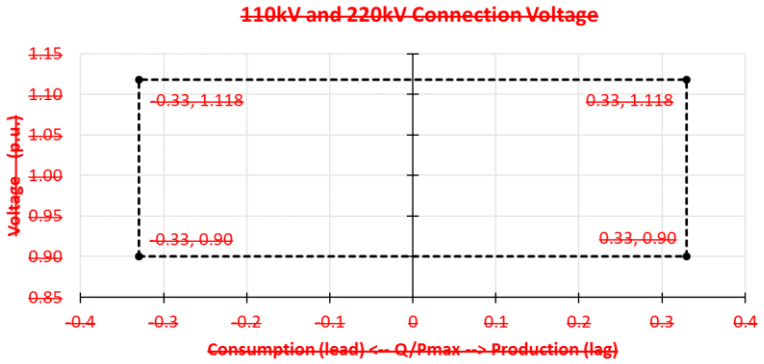
To rectify this error in clause CC.7.5.10(f), we propose separating out the graphs for 110 kV and 220 kV, retaining the upper voltage limit for 110 kV systems of 1.118 p.u. and correcting the upper voltage limit for 220 kV systems to 1.114 p.u.

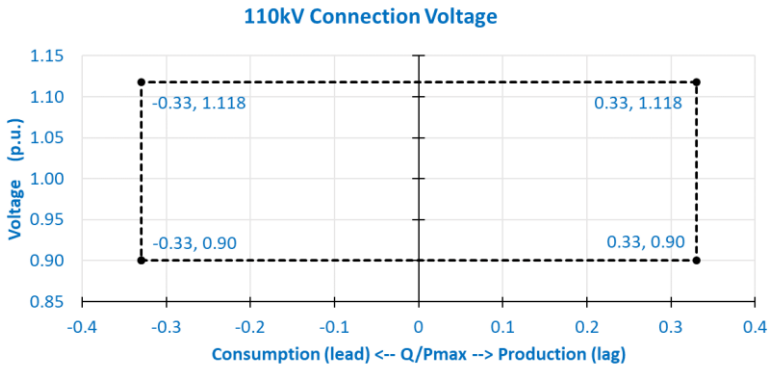
It should also be noted that Articles 18.1 and 40.1 of Commission Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules (hereafter referred to as HVDC) outline that the maximum voltage limit for 110kV to 300kV inclusive is set at 1.118p.u, which would require a continuous voltage rating of 246 kV for 220 kV plant. We requested and were granted a derogation from the CRU to ensure that the correct voltage limit at 220 kV is applied.

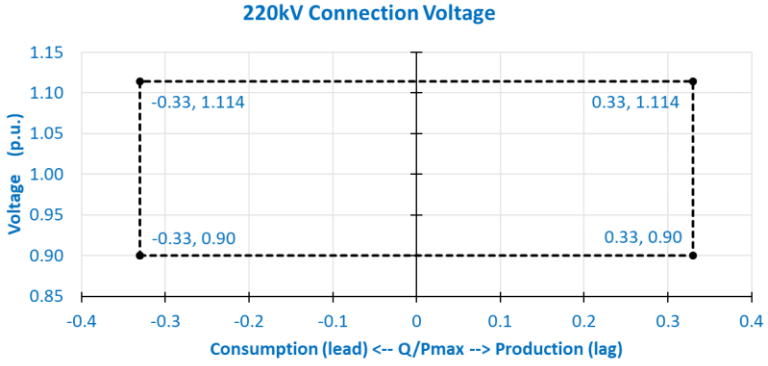
Red-line Version of Impacted Grid Code Section(s) - show proposed changes to text:
Deleted text in ~~strike-through red font~~ and new text highlighted in blue font

CC.7.5.10 Interconnector Reactive Power

(f) A remote end **Interconnector Converter Station** shall be capable of providing **Reactive Power** as per the following requirement at its maximum **Active Power** transmission capacity (Pmax) at the **Connection Point**:







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

CC.7.5.10 Interconnector Reactive Power

(f) A remote end **Interconnector Converter Station** shall be capable of providing **Reactive Power** as per the following requirement at its maximum **Active Power** transmission capacity (Pmax) at the **Connection Point**: