

Grid Code Modification Proposal Form Email to gridcode@eirgrid.com	
Title of Modification Proposal: MPID 278 Correction of Reactive Power Capability Requirements under CC.7.3.6.1 MPID (EirGrid Use Only): 278	
Date:	16 June March 2019
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Grid Code Version:	8
Grid Code Section(s) Impacted by Modification Proposal:	CC.7.3.6.1
Modification Proposal Justification: <p>The Grid Code clause CC.7.3.6.1 details the Reactive Power capability for Generation Units as measured at their alternator terminals. The Transmission System Voltage ranges are defined in CC.8.3. The Voltage ranges in CC.7.3.6.1 do not align with the ranges defined in CC.8.3 and this misalignment is causing some confusion among Generators.</p> <p>To give some background, the current Transmission System Voltage ranges in CC.8.3 were adopted in 1998 and incorporated into the first version of the Grid Code in 2000. The Voltage ranges in CC.7.3.6.1, listed for the Reactive Power requirements, were in use prior to the adoption of the current Transmission System Voltage ranges and were included in Grid Code as a transitional measure.</p> <p>It is now proposed to align the Voltage ranges in CC.7.3.6.1 with the Transmission System Voltages in CC.8.3, as the existing voltage ranges in CC.7.3.6.1 are no longer relevant in this context. .</p> <p>By aligning the Voltage ranges with those in CC.8.3, it will provide Generators with the necessary clarity in relation to their Reactive Power capability requirements.</p>	

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.7.3.6 Reactive Power capability

CC.7.3.6.1 Each **Generation Unit** shall have the following **Reactive Power** capability as measured at their alternator terminals:

Voltage Range	Connected at:	At Registered Capacity between:	At 35% of Registered Capacity between:
99kV ≤ V ≤ 123kV	110kV	0.93 power factor leading to 0.85 power factor lagging	0.7 power factor leading to 0.4 power factor lagging
85kV ≤ V < 99kV		Unity power factor to 0.85 power factor lagging	0.7 power factor leading to 0.4 power factor lagging
200kV ≤ V ≤ 245kV	220kV	0.93 power factor leading to 0.85 power factor lagging	0.7 power factor leading to 0.4 power factor lagging
190kV ≤ V < 200kV		Unity power factor to 0.85 power factor lagging	0.7 power factor leading to 0.4 power factor lagging
360kV 350kV ≤ V ≤ 420kV	400kV	0.93 power factor leading to 0.85 power factor lagging	0.7 power factor leading to 0.4 power factor lagging
350kV ≤ V < 360kV		Unity power factor to 0.85 power factor lagging	0.7 power factor leading to 0.4 power factor lagging

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

CC.7.3.6 **Reactive Power** capability

CC.7.3.6.1 Each **Generation Unit** shall have the following **Reactive Power** capability as measured at their alternator terminals:

Voltage Range	Connected at:	At Registered Capacity between:	At 35% of Registered Capacity between:
$99\text{kV} \leq V \leq 123\text{kV}$	110kV	0.93 power factor leading to 0.85 power factor lagging	0.7 power factor leading to 0.4 power factor lagging
$200\text{kV} \leq V \leq 245\text{kV}$	220kV	0.93 power factor leading to 0.85 power factor lagging	0.7 power factor leading to 0.4 power factor lagging
$350\text{kV} \leq V \leq 420\text{kV}$	400kV	0.93 power factor leading to 0.85 power factor lagging	0.7 power factor leading to 0.4 power factor lagging