

DISTRIBUTION CODE MODIFICATION PROPOSAL FORM

Modification Proposal submitted By: David Cashman	DATE OF SUBMISSION OF PROPOSAL: 09/06/2015	Modification Proposal Number: <i>(to be assigned by Review Panel Secretary)</i> # 37
CONTACT DETAILS FOR MODIFICATION PROPOSAL ORIGINATOR: (IF NOT DISTRIBUTION CODE REVIEW PANEL)		
NAME: David Cashman		TELEPHONE NUMBER: 01 2370122
E-MAIL ADDRESS:	david.cashman@eirgrid.com	
MODIFICATION PROPOSAL TITLE:	Transition of voltage control modes for wind farms	
DISTRIBUTION CODE SECTION(S) AFFECTED BY PROPOSAL DCC11.5.2.3 Voltage Control		
MODIFICATION PROPOSAL DESCRIPTION <i>(Clearly state the desired amendment and all text changes. Attach further information if necessary)</i> DCC11.5.2.3 Voltage Control For DSO type A Controllable WFPS's irrespective of Registered Capacity and DSO type B Controllable WFPS's with Registered Capacity $\geq 5\text{MW}$, under steady state conditions, the Voltage Regulation System shall be capable of implementing the following Reactive Power control modes which shall be available to the DSO or TSO as agreed by DSO and TSO : a) The Controllable WFPS shall be capable of receiving a power factor control (PF) set-point to maintain the power factor set-point at the Connection Point ; b) The Controllable WFPS shall be capable of receiving a Reactive Power Control (Q) set-point to maintain the Reactive Power set-point at the Connection Point ; c) The Controllable WFPS shall be capable of receiving a Voltage Regulation (kV) set-point for the voltage at the Connection Point . The Voltage Regulation System shall act to regulate the voltage at this point by continuous modulation of the Controllable WFPS's Reactive Power output, without violating the voltage Step Emissions limits as set out in the IEC standard 61000-3-7:1996 Assessment of Emission limits for fluctuating loads in MV and HV power systems. d) A change to the power factor control (PF) set-point, Reactive Power control (Q) set-point or Voltage Regulation (kV) set-point shall be implemented by the Controllable WFPS within 20 seconds of receipt of the appropriate signal, within its Reactive Power capability range as specified in DCC11.4.5 e) One Reactive Power Control mode shall be operational at all times with the facility to toggle between each of the Reactive Power control modes as instructed by the DSO or TSO as agreed by the DSO and TSO. Toggling between Reactive Power controllers shall be smooth in transfer i.e. the Controllable WFPS shall calculate and implement an appropriate set-point when transferring to the new control mode. The set-point calculated for the new control mode shall be consistent with the Mvar output at that time.		
MODIFICATION PROPOSAL JUSTIFICATION <i>(Clearly state the reason for the modification. Attach further information if necessary)</i> The smooth transition between voltage control modes is an important aspect in managing system voltage. This modification aims to clarify the requirement on wind farms to appropriately transition between the three voltage control modes. This modification aims to align with the recent modification (MPID 250) passed at Grid Code for transmission connected wind farms.		
IMPLICATIONS OF NOT IMPLEMENTING THIS MODIFICATION Without this requirement implemented there will be reduced capability in the windfarm voltage controllers which may have adverse impacts for customers of both the transmission and distribution systems. Large transitions in system voltage could occur if smooth transitions are not implemented by windfarms.		
PLEASE SUBMIT MODIFICATION PROPOSALS TO THE PANEL SECRETARY BY E-MAIL TO: DistCodePanel@mail.esb.ie		