

DISTRIBUTION CODE MODIFICATION PROPOSAL FORM

Modification Proposal submitted By: Paul O'Halloran	DATE OF SUBMISSION OF PROPOSAL: 17 th December 2014	Modification Proposal Number: <i>(to be assigned by Review Panel Secretary)</i> #33
CONTACT DETAILS FOR MODIFICATION PROPOSAL ORIGINATOR: (IF NOT DISTRIBUTION CODE REVIEW PANEL		
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MODIFICATION PROPOSAL TITLE:	WFPS Voltage Step Change	
DISTRIBUTION CODE SECTION(S) AFFECTED BY PROPOSAL 1. DCC11.4		
MODIFICATION PROPOSAL DESCRIPTION <i>(Clearly state the desired amendment and all text changes. Attach further information if necessary)</i> 1. Replace the current content of DCC11.4 with the material shown in Appendix 1		
MODIFICATION PROPOSAL JUSTIFICATION <i>(Clearly state the reason for the modification. Attach further information if necessary)</i> This modification aims to clarify the Voltage Regulation requirements for WFPS outlined in DCC11.4.1.3. The modification clarifies that two distinct reactive power responses are required from DSO type A Controllable WFPS's irrespective of Registered Capacity and DSO type B Controllable WFPS's with Registered Capacity $\geq 5\text{MW}$. When the voltage is within the bounds specified in Table 6A the WFPS must provide the reactive power response as specified in DCC11.4.1.3. However if the step change brings the voltage below the lower bounds of Table 6A then DCC11.2 supersedes DCC11.4.1.3. This modification aims to clarify the Voltage Regulation requirements for WFPS outlined in DCC11.4.1.3. The modification clarifies that a step change can be either a voltage rise or fall.		
IMPLICATIONS OF NOT IMPLEMENTING THIS MODIFICATION The intent of the modification is to ensure that the WFPS provides the appropriate reactive power response depending on the voltage. For this reason the modification will provide clarity to Users on this requirement. Omitting this line may cause ambiguity.		
PLEASE SUBMIT MODIFICATION PROPOSALS TO THE PANEL SECRETARY BY E-MAIL TO: DistCodePanel@mail.esb.ie		

Appendix 1: DCC11.4

DCC11.4 VOLTAGE REQUIREMENTS

DCC11.4.1 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, as specified in DCC11.5.2.3, which shall be available to the **DSO** or **TSO** as agreed between **DSO** and **TSO**

DCC11.4.1.1 **Controllable WFPS's** shall have a continuously-variable and continuously-acting **Voltage Regulation System** with similar response characteristics to a conventional **AVR** and shall perform generally as described in BS4999 part 140, or equivalent European Standards.

DCC11.4.1.2 The slope setting of the **Voltage Regulation System** shall be capable of being set to any value between 1 % and 10 %. The setting shall be specified by the **DSO** at least 120 business days prior to the **Controllable WFPS's** scheduled operational date. The **Controllable WFPS** shall be responsible for implementing the appropriate settings during **Commissioning**. The slope setting may be varied from time to time depending on system needs. The **DSO** shall give the **Controllable WFPS** a minimum of two weeks' notice if a change is required. The **Controllable WFPS** shall formally confirm that any requested changes have been implemented within two weeks of receiving the **DSO's** formal request.

DCC11.4.1.3 The speed of response of the **Voltage Regulation System** shall be such that, following a **Step Change** in voltage at the **Connection Point**, the **Controllable WFPS** shall achieve 90 % of its steady-state **Reactive Power** response within 1 second. The response may require a transition from maximum **MVAr** production to maximum **MVAr** absorption or vice-versa. If the **Step Change** results in a **Voltage Dip** then clause DCC11.2 takes precedence.