DISTRIBUTION CODE MODIFICATION PROPOSAL FORM

Modification Proposal submitted By: Séamus Power	**DATE OF SUBMISSION OF PROPOSAL:** 30/04/2015	**Modification Proposal Number:** *(to be assigned by Review Panel Secretary)* **#35**
CONTACT DETAILS FOR MODIFICATION PROPOSAL ORIGINATOR: (IF NOT DISTRIBUTION CODE REVIEW PANEL		
NAME: Séamus Power		**TELEPHONE NUMBER:** 01 2370522
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MODIFICATION PROPOSAL TITLE:	Power Factor requirements for Type C, D and Type B <5 MW WFPS connections	

DISTRIBUTION CODE SECTION(S) AFFECTED BY PROPOSAL
DCC11.4.3 Power Factor

MODIFICATION PROPOSAL DESCRIPTION *(Clearly state the desired amendment and all text changes. Attach further information if necessary)*

DCC11.4.3 Power Factor

WFPSs, with connection types B with a **Registered Capacity** of <5**MW** and connection types C and D shall have a settable power factor in the range of 0.92, such that vars are absorbed by the **WFPS** from the **Distribution System**, and unity, as measured at the **Connection Point**. This power factor range is illustrated in Figure 11. The setting shall be specified by the **DSO** at least 120 business days prior to the **WFPS's** scheduled operational date. The **WFPS** shall be responsible for implementing the appropriate settings during **Commissioning**. The power factor setting may be varied from time to time depending on system needs. The **DSO** shall give the **WFPS** a minimum of two weeks' notice if a change is required or an agreed date for the change to be implemented by the **WFPS**. The **WFPS** shall formally confirm that any requested changes have been implemented within two weeks of receiving the **DSO's** formal request or on the date agreed with the **DSO**, as appropriate. **WFPSs**, with connection type~~, D or~~ E~~,~~ shall keep power factor between 0.92 and 0.95, as measured at the **Connection Point**, such that vars are absorbed by the **WFPS** from the **Distribution System**. This power factor range is illustrated in Figure ~~11~~12.

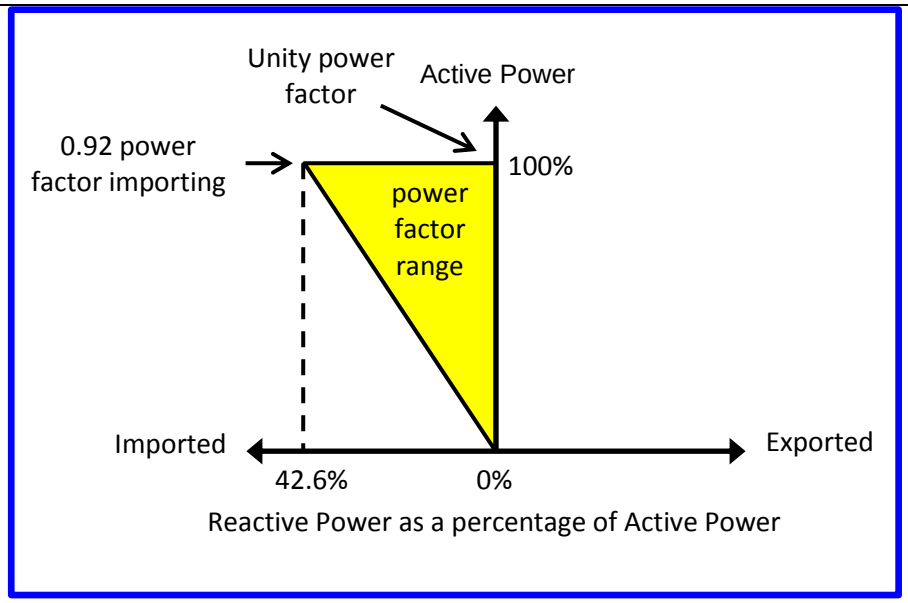
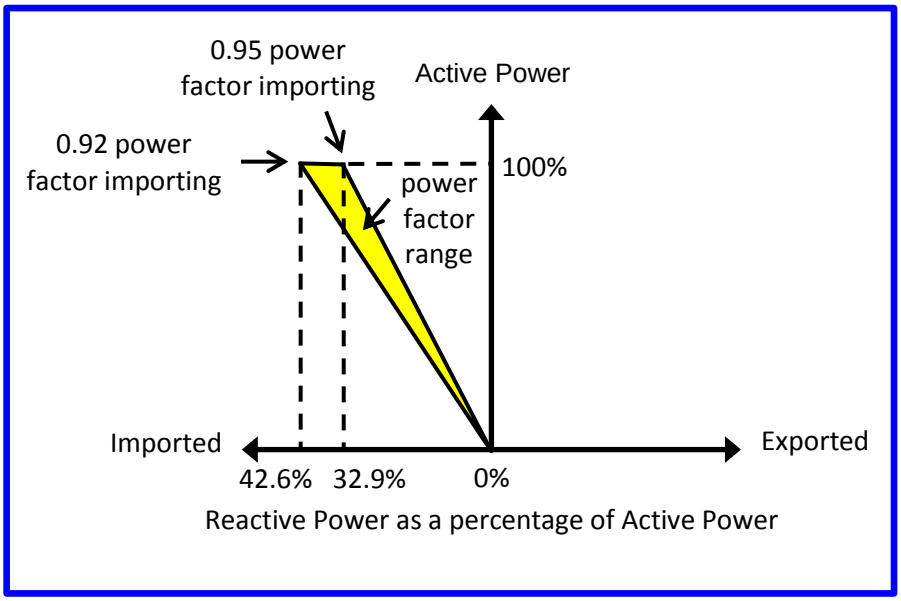

Unity power factor
Active Power
0.92 power factor importing
100%
power factor range
Imported
Exported
42.6%
0%
Reactive Power as a percentage of Active Power

Figure 11


0.95 power factor importing
Active Power
0.92 power factor importing
100%
power factor range
Imported
Exported
42.6%
32.9%
0%
Reactive Power as a percentage of Active Power

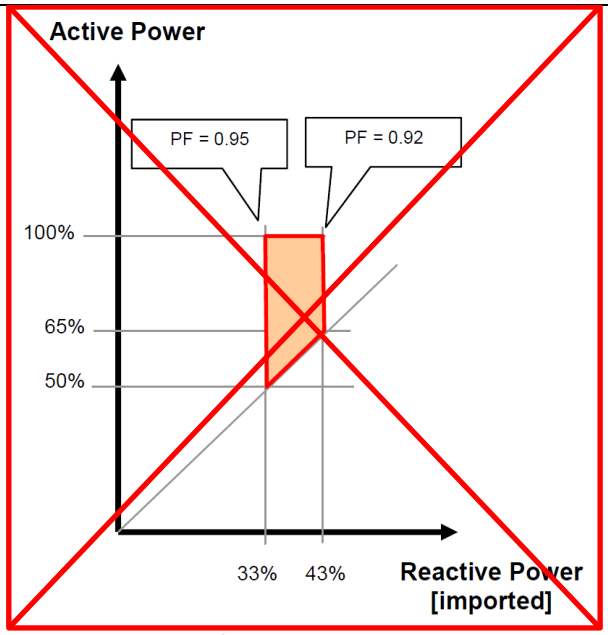


Figure ~~11~~12

MODIFICATION PROPOSAL JUSTIFICATION *(Clearly state the reason for the modification. Attach further information if necessary)*

Recent studies completed by EirGrid indicate that there is a significant saving in terms of reactive compensation requirements across the transmission network if Type C- and D-connected WFPSs, whose connection method can support it, can be operated at unity power factor.

IMPLICATIONS OF NOT IMPLEMENTING THIS MODIFICATION

Higher cost of reactive compensation requirements across the transmission system.

PLEASE SUBMIT MODIFICATION PROPOSALS TO THE PANEL SECRETARY BY E-MAIL TO: DISTCODEPANEL@MAIL.ESB.IE