Grid Connection ESC: Template for reporting issues regarding implementation of NC RfG, NC DCC and NC HVDC

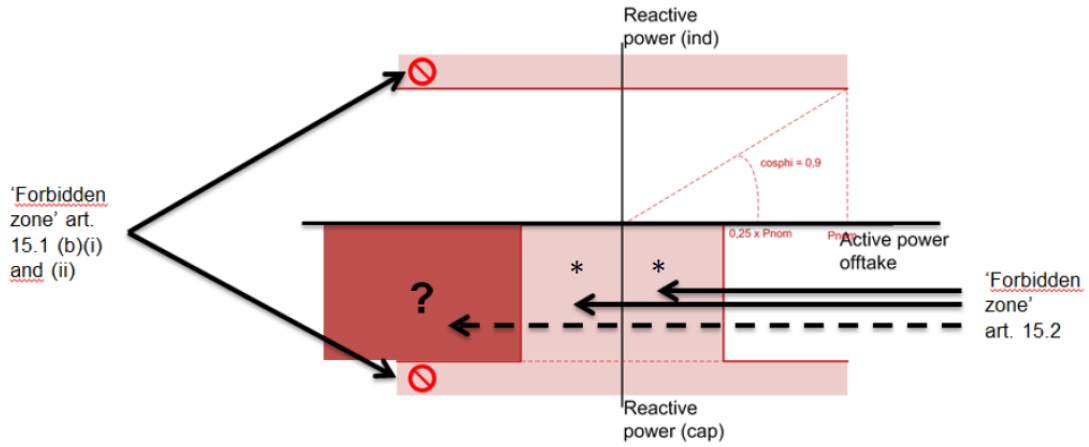
Version 2017-03-01

Affected NC	**NC DCC**
Topic	**Reactive Power**
Related article(s)	**15.2**
Member State (abbr)	**BE**
Affected parties	**DSO/TSO**
Reporting party	**DSO**
Date of introduction	**DD/MM/YYYY**

Description of the issue

The article is clearly applicable to the DSOs if the relevant TSO requires to have this capability.

We could 'translate' this article (and article 15.1 (b)) in the following figure:



Is it correct to state that in relation to article 15.2 the 'forbidden zone' (= not export reactive power) is limited to the light red zones (*) as indicated above and does not concern the dark red zone.

Can this statement be confirmed ?

Note regarding the dark red zone: If there is a power flow from the DSO to the TSO (export power to the TSO), one could mathematically state, since the power flow has a negative sign, that the dark red zone represents a power flow of less than 25% of the maximum import power (e.g. – 75% < 25%).

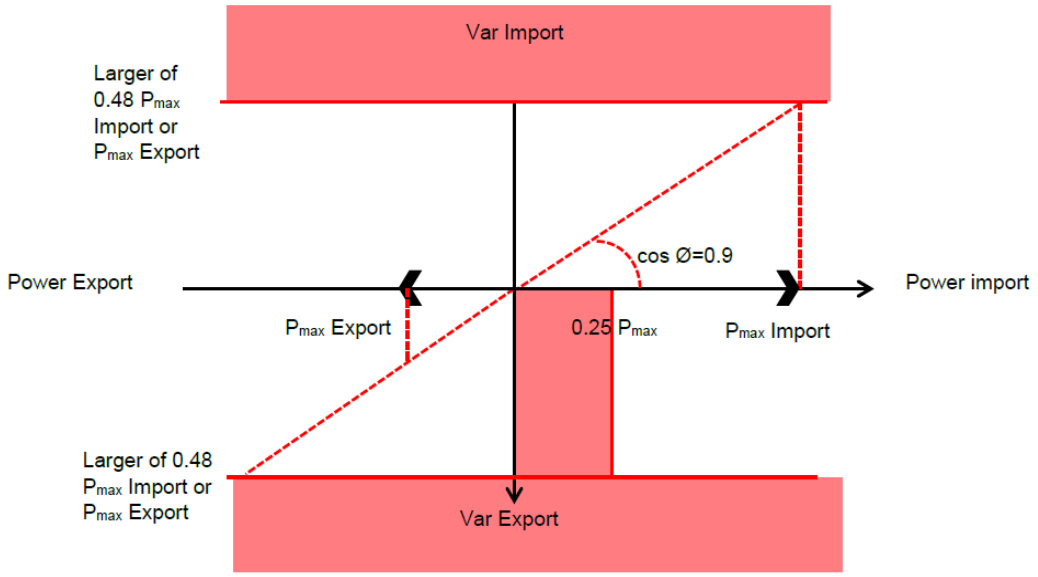
Adopted solution

GB answer:

We believe that the Belgian interpretation of Article 15.2 is incorrect. We agree that the text could be interpreted in this way based on the exact wording use, but we believe that it is an incorrect interpretation of what was intended.

The GB interpretation has always been that if a connection point is exporting power, then the full range of power factors should be available, subject to the maxima of Article 15 1(b). Conversely, if importing real power, the export of VAr will be constrained to zero at low forward power to limit voltage rise on the transmission system.

Adopting the drawing conventions of the Belgian paper, we believe it should look like this:



Lessons learned

If there is any doubt, ask for interpretations from other MS.

Remark: no confirmation yet from EC.