### **HVDC Network Code – Technical Workshop**

Code Drafter: Darren Chan

11-12 Dec 2013 JESG

#### **Basis for the HVDC code**

#### From ACER

- Apply to Significant Grid Users in transmission or distribution networks
- Apply to existing and new significant grid users
- Requirements are the minimum to be met

#### From EU

- Promote integration of electricity market
- Increase security of supply
- Increase penetration of RES
- Consistent with other network codes
- Harmonisation of requirements

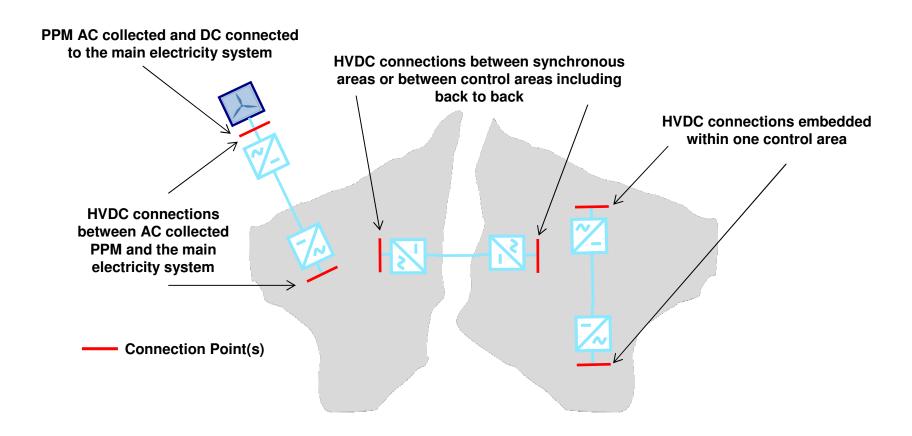
#### From ENTSO-E

- Requirements based on system needs
- Should not favour nor discriminate against technology
- Requirements placed on AC side
- Consider long term development of the network

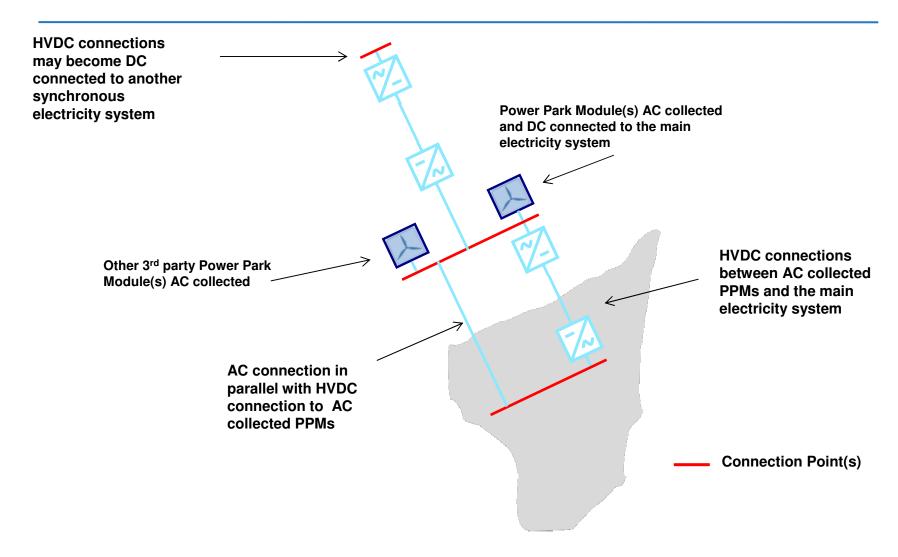
#### **HVDC** code applies to

- HVDC connections between synchronous zones
- HVDC connections within or between control areas connected to the Transmission system
- HVDC connections embedded within a control area in a Distribution System if cross-border impact is demonstrated
- HVDC connections connecting to PPMs
- PPMs which are AC collected but DC connected to a synchronous area

### **Significant Grid Users**



#### **DC Connected PPMs**



#### **HVDC** code drafting

- Concentrate on technical requirements
- Consider longer term development of network
- Meet timescale for delivery
- Align with other codes, especially with RfG
- Code invariably contains:
  - Grammatical and editorial errors for most DT members English is not their first language
  - Unintentional ambiguity
  - Some Articles being more well developed and thought through than others