

# High Voltage Direct Current (HVDC)

## Fact Sheet

### Background

High Voltage Direct Current (HVDC) is one of a set of new European codes that are being introduced as part of the European Third Energy Package; this came into law on 3 March 2011, with the aim of enabling a greater penetration of renewables, improving security of supply and enhancing competition. It looks to do this by developing a European internal energy market through the creation of a regulatory framework to support the harmonisation and integration of European Energy Markets.

HVDC is seen as one of the main drivers for creating harmonised solutions and products necessary for an efficient pan-European (and global) market in generator technology. The purpose of the code is to bring forward a set of coherent requirements in order to meet these challenges of the future.

The requirements under HVDC are similar to the existing GB Grid Code for HVDC converters and HVDC systems. The code also introduces specific requirements for Direct Current-connected Power Park Modules.

#### What are the timings?

HVDC entered into force as European law on **29 September 2016**. It applies to 'new' HVDC connections, defined as those that are not currently connected to the system and do not let contracts for main plant items by **29 September 2018**. A 'new' user must ensure compliance with the code from **29 September 2019** onwards (i.e. their connection date).

#### Implementation

GB implementation of HVDC is taking place through an industry workgroup established under the Grid Code. The main task is to align the existing GB codes such that any GB user can be confident that by satisfying the GB codes they are also fulfilling the requirements of any relevant European legislation. The workgroup will also need to set the parameters for the parts of the code which are left to national discretion. This work is progressing now and must be completed before 29 September 2018.

All changes to GB codes will be consulted on and are subject to approval by Ofgem.

Industry Workgroup – the website for this group is here: <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/GC0090/>

**Joint European Stakeholder Group (JESG)** - open to any interested parties, this is a single monthly meeting supported by BEIS, Ofgem and National Grid covering all European issues including European Network Code development and implementation.

For more information on either group or to sign-up for the weekly newsletter please contact [europencodes.electricity@nationalgrid.com](mailto:europencodes.electricity@nationalgrid.com).

### This matters...

#### ...to whom

HVDC impacts any 'new' High Voltage connection to the Transmission System — whether an interconnector or a DC-connected Power Park Module. See "What are the timings?" section for the definition of 'new'.

#### ...when

HVDC entered into force as European law on **29 September 2016**. 'New' connections will need to be compliant from **29 September 2019**.

#### ...how

GB implementation of HVDC is taking place through an industry workgroup established under the Grid Code. The group will progress recommendations for how the requirements set out in HVDC will be applied in GB.

All changes to GB codes will be consulted on and are subject to approval by Ofgem.