

The Electricity Storage Network represents a number of British and foreign companies with an interest in Electrical energy storage. Our members operate in the GB and SEM markets, as well as mainland Europe. A number of our members also have operating experience in markets outside Europe. We should like to submit our views in response to your call for comments on the of Network Code on Emergency and Restoration

1. Electricity storage comprises a number of technologies, and not just pumped hydro. Electricity storage projects based on batteries and flywheels have been successfully demonstrated and other technologies such as liquid air and compressed air and thermal technologies are at advanced stages of demonstration and deployment. These technologies have different operating parameters, and in many cases can switch from demand (that is charging) to supply (that is discharging) at high speed, in the order of tens of milliseconds for example.
2. Article 2(6) includes a definition of energy storage which does not differentiate between devices which can and cannot contribute to the Frequency Deviation management procedure defined in Article 13.
3. Article 13 (6) implies that energy storage acting as a load shall be disconnected before the automatic low frequency demand disconnection scheme in Article 14. This paragraph should be redrafted to allow such energy storage devices that can rapidly switch from charging to neutral or charging to discharging to contribute to the mitigation of frequency events.
4. Article 14 (3) should also be redrafted to recognise the contribution that can be made by energy storage to the mitigation of frequency events.
5. TSO's and DSO's should be encouraged to consider the use of advanced technologies such as energy storage as an efficient, effective and reliable means to operate the system.