

Long duration energy storage

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Members and assets & interests

Pumped hydro



Liquid air



Compressed air

Using EDF's existing gas storage facilities



Alternative batteries

Hybrid flow battery with Invinity Energy Systems



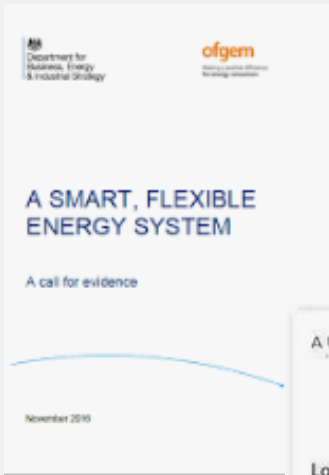
Hydrogen storage



A target(s) to drive policy

UK decarbonised grid = 50GW offshore wind but what level of storage?

2023: 2.7GW PHES (4.7 pipeline) + 2GW BESS (20-30GW pipeline)



BEIS/ Ofgem July 2021 (before British Energy Security Strategy):

- 2050: 30GW of DSR and electrical storage by 2050 .. 15GW storage?
- (2030 = 30GW of DSR, storage & interconnectors [18GW interconnectors])



Aurora Energy, Feb 2022:

- 46GW electrical storage by 2035 including 24GW LDES
- Up to 31 TWh (38GW) to store excess renewable generation in 2035
- Plus an additional 26 TWh (+ 8GW) to help with constraints



Afry for Climate Change Committee, Feb 2023:

Central scenario by 2035

- 11 GW of grid storage output capacity (range of 10-19 GW)
- 41 GWh of grid storage capacity (with a range of 30-366 GWh).
- 17GW if no unabated gas