ESN Symposium 2017

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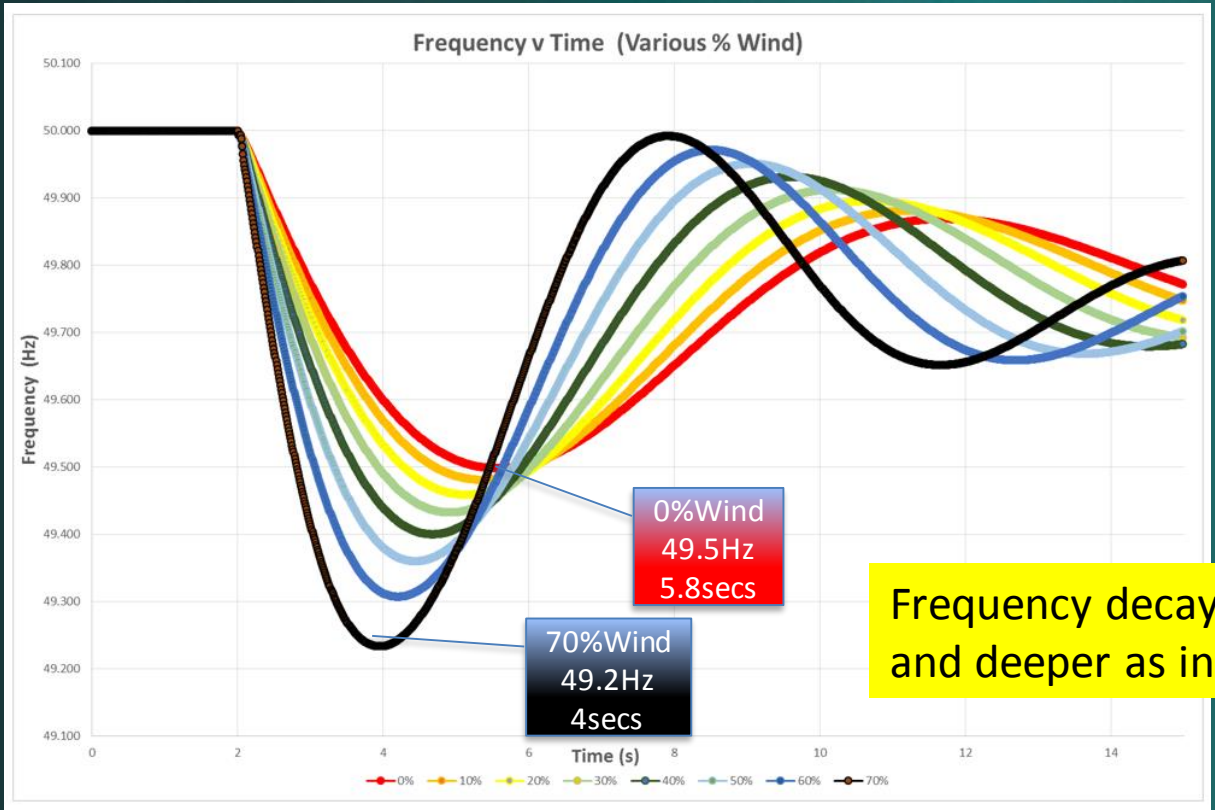
Main Issues for Storage

- Ownership model for Storage
  - It is important that if DNOs own storage they can use all its capabilities as this provides maximum benefits to the system.
- Charging regimes must not penalise storage.
- Contract lengths must be long enough to make merchant plants bankable.
- Storage must not be grouped with Generation or Demand as it has different characteristics. These must be recognised to provide max benefit to the owner and the system.

Why is Storage Essential?



23GW Minimum Demand

Impact of a major disturbance (secured event)

Frequency decays are faster and deeper as inertia falls

Why is storage Essential?

- It is essential for a very fast response to contain frequency dips caused by major disturbances.
- Synchronous generation will not respond fast enough as more renewable (non-synchronous) generation is increased.
- Some fast frequency response can be achieved by DSM.
- Storage can provide maximum flexibility and very fast response. A 50MW storage facility provides 100MW of flexibility. Can respond in msec.
- Power vs Energy – not all storage is the same and this must be considered when developing legislation and codes.

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