



Dynamic System Monitoring (DSM) Project

August 2023

Dynamic System Monitoring (DSM) Project

Background

- ESO needs to monitor the performance of service providers (e.g. generators) on the grid in order to carry out **post fault analysis, manage network risk** and **verify compliance**. There is an increasing need to evaluate the providers' dynamic behaviour during system event.
- The difficulties in accessing data creates a risk for ESO to investigate events adequately. Requiring data manually without an established system following a system event or fault, this could result in **delays, and missing data** when investigating system issues.



Future Expectation

- A new system is needed for the ESO to **seamlessly access** DSM data from transmission connected generators and interconnectors **within 24 hours** of identifying a fault event anywhere in England, Wales and Scotland.
- The recommended strategic solution is to securely link **all the known and future DSM devices** for all generator units that are directly connected to the transmission network to a central system that is owned and maintained by ESO.

Next Steps

- ESO would appreciate opinions from the grid code users before establishing the new data collection system
- Questionnaires to be sent out to all the grid code users to collect :
 - a. their installed DSM units' information (e.g. settings, status and accessibilities)
 - b. their preferences of data collection

Current Status

No uniform data collection method through the whole network. Under some circumstance, ESO has to request service providers to provide data manually for post fault analysis.

Potential Future Options

Providers to upload DSM data to file sharing system e.g. sharepoint or data portal

Replace existing system with supported system and bring under ESO's control – expand network coverage to link all direct connects

➔ Based on the feedback received through questionnaires, ESO will put forward a proposal for the optimum method to access and acquire recorded data from these DSM devices.