nationalgrid

System Operation Guideline (SOGL)

Fact Sheet

The System Operation Guideline (SOGL) sets minimum system security, operational planning and frequency management standards to ensure safe and coordinated system operation across Europe, creating a standardised framework on which regional cooperation including balancing markets can be implemented. SOGL sits alongside the Emergency & Restoration code (E&R) within the 'System Operation' area of the European Network Codes.

The guideline originated from three distinct and separately drafted network codes covering different areas of system operation. The three were combined into one guideline to improve the efficiency of the legislative process.

The SOGL provisions are mostly based on existing system operation practice in both GB and across Europe. As such, many of the requirements and obligations match current arrangements for system operation. Some new concepts and initiatives are introduced which we anticipate will result in some changes to the Grid Code, Distribution Code and System Security and Quality of Supply Standards (SQSS) changes.

Please see overleaf for a summary of the main sections of SOGL, key concepts and definitions and the key changes for GB.

Am I affected?

SOGL impacts TSOs, DNOs, generators, Interconnectors, Transmission connected demand facilities and distribution connected facilities that provide demand response directly to the TSO.

When?

SOGL entered into force as European law on **14 September 2017**, with some deliverables required immediately and most due over the **following 2 years**.

How?

GB implementation of SOGL is being coordinated via the Joint European Stakeholder Group (JESG).

The requirements from SOGL have been mapped to the current GB frameworks to identify potential impacts and to assess the need for any GB framework changes to ensure compliance with SOGL requirements. SOGL requires TSOs to develop a set of methodologies and proposals which will be published on the ENTSO-E consultation hub, and signposted at the JESG.

National Grid has raised the following Grid Code modification in relation to SOGL:

GC0106 proposes the changes necessary for compliance with the SOGL data exchange requirements.

GC0114 is developing prequalification processes for Frequency Containment (FCR), Restoration (FRR) and Replacement Reserves (RR). These new prequalification processes will impact those Balancing Service providers who current provide frequency management services.

In addition Distribution Code modification **DCRP/17/01** was proposed to ensure the Distribution Code is compliant with the requirements of SOGL and approved by the Authority in April 2017.

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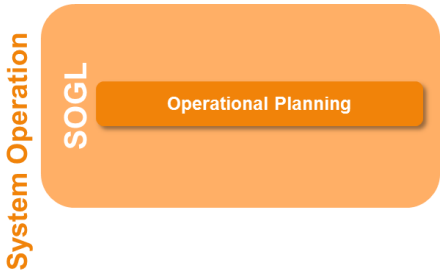
OS defines common minimum security standards for system operation across Europe due to increased risk of system incident propagation given growing interconnection.

Key concepts & definitions introduced:

Remedial actions – allowable TSO actions to restore/protect operational security,

Contingencies – incidents which could affect operational security,

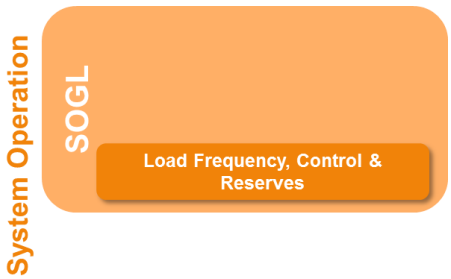
System states – to be used for alerting other TSOs of current operational status.



OP introduces of common operational planning activities to facilitate exchange of information between TSOs and RSCs given the increased importance of regional issues on system security,

Key concepts & definitions introduced:

Regional Security Coordinators (RSCs) – multi-TSO service providers who will deliver operational services to TSOs taking into account regional interdependencies,



LFC&R provides a framework on which pan-European balancing markets can be built by introducing common concepts for reserves, creating transparency in TSO operational procedures and defining system control quality targets.

Key concepts & definitions introduced:

Operational Agreements – transparent document detailing TSO frequency management policies and procedures;

FCR, FRR and RR – three common families of frequency-related reserves;

Frequency Quality Criteria – legally binding targets for managing the system.

Key changes for GB

Data Exchange. This section details data which shall be exchanged between TSOs, Distribution System Operators (DSOs), transmission and distribution-connected system users. Though roles and responsibilities regarding data exchange are to be defined and agreed by all TSOs, a large amount of flexibility for implementation approach is retained at a GB level. Obligations regarding data exchange go live at **18 months** after entry into force *(i.e. 14 March 2019)*. A GB Grid Code modification, GC0106, is progressing the changes necessary for compliance with the SOGL data exchange requirements.

Synchronous Area Operational Agreement. This is a new document detailing frequency management policies and processes in the GB Synchronous Area. This will contain many methodologies and descriptions needed, e.g. reserve sizing, technical requirements for reserves, use of cross-border processes. Most of the detail included currently sits in internal business procedures as derived from overarching SQSS requirements. Whilst most content will match current practice, some requirements are new and therefore could result in changes to GB frameworks. Regulatory approval is needed for most content, with proposals needed **12 months** *(i.e. 14 September 2018)* after entry into force with a subsequent period for approval and implementation. The first draft of the agreements can be found on the ENTSO-E consultation hub. We will be consulting again on these proposals in July/August 2018.

Outage Coordination. A new methodology is required that allows the identification of the Grid Elements and generators whose outages should be coordinated on a regional level. This methodology is subject to Regulatory approval and needs to be submitted **12 months** *(i.e. 14 September 2018)* after entry into force. The role of Regional Security Coordinators in outage coordination and security assessment is also detailed. The first draft of the methodologies can be found on the ENTSO-E consultation hub.