## National Electricity Transmission System Security and Quality of Supply Standards (NETS SQSS)

**Modification Register** 

(Updated September 2019)

### **Modification Summary**

Dates in **bold** are confirmed dates, while dates in *italics* are anticipated dates for future milestones.

SQSS GSR No.	Title	Modification Proposal Raised	Workgroup Stage	Previous Workgroup Meeting	Next Workgroup Meeting	Workgroup Report Approved by Review Panel	I/C Published	I/C Closed	Responses Received	Modification Report Submitted to Authority	Authority Decision	Implementation Date
016	Embedded Generation Assumptions	22 July 2013	<b>→</b>	11 January 2017	<b>+</b>	4 Dec 2017	6 Dec 2017	3 Jan 2018	<b>→</b>	28 Feb 2018	25 May 2018	01/04/2019
018	Treatment of Sub- Synchronous Oscillations in the NETS SQSS	4 December 2013	<b>→</b>	<b>&gt;</b>	<b>&gt;</b>	2 Dec 2015	11 April 2016	09 May 2016	<b>→</b>	31 Jan 2017	7 March 2017	01/04/2019
022	Security and Economy Required Transfer Conditions	1 June 2016	<b>→</b>	24 May 2014	ТВС							Work ongoing
023	Clarification of the N-1-1 Requirements and minor housekeeping change	9 May 2018	x	x	x	x	25 June 2018	20 July 2018	<b>→</b>	24 Aug 2018		01/04/2019
024	National Grid Legal Separation Changes	9 May 2018	x	x	x	x	08 June 2016	05 July 2018	<b>→</b>	24 Aug 2018		01/04/2019
025	ER P28 Diagram Update	14 Sep 2018					Sep 2018	Oct 2018	→	Nov 2018		TBC

#### **Ongoing Modifications**

SQSS GSR No.	016		
Title	Embedded Generation Assumptions		
Proposer	Vandad Hamidi (NGET)		
Submitted	22 July 2013		
	Modification Description	Progress	

GSR016 was raised to specify how embedded generation should be treated in Chapter 4 MITS studies. The GSR009 modification to the NETS SQSS in 2011 specified certain scaling factors for various types of generation (based on fuel type) with different scaling factors under the economy and security criteria. These scaling factors are only considered for "large" power stations (i.e. generation over 100MW in England and Wales).

Boundary transfer calculations are performed assuming static net demand within the boundaries. The net demand is supplied to transmission companies as part of Week 24 Data submissions from the DNOs. Given the increase in the penetration of embedded generation, it is no longer possible to accurately calculate boundary transfers without considering the impact of embedded generators within the boundaries. To date, there is no standard treatment of embedded generation in the DNO submissions, leading to various assumptions across GB.

It is therefore recommended to amend the NETS SQSS to explicitly specify how to include the impact of small and medium power stations on boundary calculations.

#### **Modification Proposal**

The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 22 July 2013 where the NETS SQSS Review Panel determined that the Modification Proposal will progress to a Workgroup, subject to ratification of the Terms of Reference.

#### Workgroup

The NETS SQSS Review Panel determined that a Workgroup was required to investigate these issues. The Terms of Reference have been agreed by the NETS SQSS Review Panel and a Workgroup has been established with Workgroup Meetings in progress. The Draft Workgroup Report is currently being reviewed by the Workgroup.

#### **Industry Consultation**

GSR016 was published for Industry Consultation on 6 December 2017 and closed on 3 January 2018.

#### **Modification Report**

The GSR016 Modification Report was submitted to the Authority on 28 February 2018.

#### Authority Decision & Implementation

The Authority approved GSR016 on 25 May 2018. The Authority also made a decision to delay the implementation of GSR018 and issue a second Industry Consultation to include both GSR016 and GSR018, so that both modifications can be implemented together. The Authority has not yet issued the statutory consultation to modify the licenses and will do so at an appropriate time in the future.

This modification was implemented on 1/04/2019.

SQSS GSR No.	018		
Title	Treatment of Sub-Synchronous Oscillations in the NETS SQSS		
Proposer	Graham Stein (NGET)		
Submitted	d 4 December 2013		
Modification Description Progress			

# Modification Description A number of Transmission Licensees and Transmission Users are in the process of enhancing their networks or connecting generation using Series

process of enhancing their networks or connecting generation using Series Capacitor and / or HVDC technology. Both of these types of equipment can cause sub-synchronous oscillations (SSO) to occur by interacting with other User's equipment in the form of sub-synchronous resonance (SSR) or sub-synchronous torsional interaction (SSTI).

The Grid Code Review Panel Paper: "Suppression of Sub-Synchronous Resonance from Series Compensators" (pp13/54) proposed changes to the Grid Code to place obligations on Transmission Licensees to mitigate SSR where Series Compensation is deployed. The Grid Code Review Panel asked that these proposals be given further consideration in light of concerns raised by Transmission Licensees about how and where any SSR related obligations are expressed within the transmission frameworks. The Grid Code Review Panel also asked whether there was a need to capture SSR and SSTI within the NETS SQSS.

#### **Modification Proposal**

The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 4 December 2013 where the NETS SQSS Review Panel determined that the Modification Proposal will progress to a Workgroup, subject to ratification of the Terms of Reference.

#### Workgroup

The NETS SQSS Review Panel determined that a Workgroup was required to investigate these issues. The Terms of Reference were approved at the 2 April 2014 NETS SQSS Review Panel and a Workgroup has been established. The Workgroup Report was presented and approved at the 2 December 2015 NETS SQSS Review Panel. This shall now proceed to industry consultation in due course.

#### **Industry Consultation**

An Industry Consultation was published on 11 April 2016 with a closing date of 09 May 2016.

#### **Modification Report**

A Modification Report that summarises the Industry Consultation responses has been produced and submitted to the Authority for a decision. The Modification was sent back by the authority with a request for further work to be done. The Modification Report was re-submitted to the Authority.

#### Authority Decision & Implementation

GSR018 was re-submitted to the Authority for a decision on 31 January 2017. The Authority approved the modification on 7 March 2017 and the first Statutory Industry Consultation to amend the licence closed on 19 March 2018. The Authority has decided that this modification is not time critical so a second Industry Consultation will be issued for GSR016 and GSR018, so that both modifications can be implemented together.

This modification was implemented on 01/04/2019.

SQSS GSR No.	022					
Title	Security and Economy Required Transfer Conditions					
Proposer	NGET					
Submitted	1 June 2016					
	Modification Description	Progress				
	considers issues and interactions that arise when applying ction 4 criteria due to the availability of generation and due to	Modification Proposal The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 1 June 2016 where the NETS SQSS Review Panel determined that nominations for the Workgroup would be sent out and Terms of Reference agreed.  Workgroup The amended Terms of Reference were agreed at Panel on 8 February 2017.  Industry Consultation GSR022 has not yet progressed to this stage.  Modification Report GSR022 has not yet progressed to this stage.  Authority Decision & Implementation GSR022 has not yet progressed to this stage.  The SQSS Panel will be discussing this modification and next steps at the September Panel meeting.				

SQSS GSR No.	023				
Title	Clarification of the N-1-1 Requirements and Minor Housekeeping Change				
Proposer	Bieshoy Awad (NGET)				
Submitted	9 May 2018				
	Modification Description	Progress			
history of the requ takes place during housekeeping cha	eks to modify the NETS SQSS to ensure that it reflects the uirement to secure parts of the NETS against a fault outage that g a planned outage (N-1-1 condition). It also proposes a minor ange to reflect the name change of one Transmission Licensee i) in both the NETS SQSS and the corresponding NETS SQSS nce.	Modification Proposal The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 9 May 2018 where the NETS SQSS Review Panel determined that following the review of a draft paper the modification proposal should proceed directly to Industry Consultation as recommended by the Proposer.			
		Industry Consultation A draft Industry Consultation Document was circulated to the NETS SQSS Review Panel for approval on 1 June 2018. This was then released for Industry Consultation on 25 June 2018 for a period of 20 working days and closed on 20 July 2018.			
		Modification Report The GSR023 Modification Report was submitted to the Authority on 24 August 2018.			
		Authority Decision & Implementation GSR023 was submitted to the Authority for a decision on 24 August 2018. The Authority approved the modification on 2 January 2019. On 16 February 2018, the Authority proposed such a modification to implement GSR018. Due to the upcoming arrival of further SQSS modification proposals, e.g. GSR016, the Authority decided, with the support of the SQSS Panel, to delay the implementation of GSR018 such that multiple SQSS modifications could be implemented simultaneously. The Authority are to shortly consult on a new licence modification proposal in order to implement GSR018, GSR016, GSR023 and GSR024 simultaneously.			
		This modification was implemented on 01/04/2019.			

SQSS GSR No.	024				
Title	National Grid Legal Separation Changes				
Proposer	James Martin (NGET)				
Submitted	9 May 2018				
	Modification Description	Progress			
are updated an Governance Frai	eks to ensure that the National Grid legal separation changes and reflected in the NETS SQSS and the SQSS Industry mework. The changes will incorporate the new entity National system Operator (NGESO).	The Modification Proposal The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 9 May 2018 where the NETS SQSS Review Panel determined that following the review of a draft paper the modification proposal should proceed directly to Industry Consultation as recommended by the Proposer.  Industry Consultation  A draft Industry Consultation Document was circulated to the NETS SQSS Review Panel for approval on 24 May 2018. This was then released for Industry Consultation on 8 June 2018 for a period of 20 working days and closed on 5 July 2018.  Modification Report The GSR024 Modification Report was submitted to the Authority on 24 August 2018.  Authority Decision & Implementation GSR024 was submitted to the Authority for a decision on 24 August 2018. The Authority approved the changes to the NETS SQSS proposed in GSR024 on 2 January 2019. For these changes to take effect we will need to modify the relevant conditions of the electricity transmission licence so they refer to the new version of the NETS SQSS. On 16 February 2018, the Authority proposed such a modification to implement GSR018. Due to the upcoming arrival of further NETS SQSS modification proposals, e.g. GSR016, the Authority decided, with the support of the NETS SQSS Panel, to delay the implementation of GSR018 such that multiple SQSS modifications could be implemented simultaneously. The Authority intend to shortly consult on a new licence modification proposal in order to implement GSR018, GSR016, GSR023 and GSR024 simultaneously.  This modification was implemented on 01/04/2019.			

SQSS GSR No.	025					
Title	Updating the SQSS to reflect the recent modification to Engineering Recommendation P28					
Proposer	Rachel Woodbridge-Stocks & Greg Heavens (NGET SO)					
Submitted	10 September 2018					
	Modification Description	Progress				
step changes	eks to modify the NETS SQSS to update the maximum voltage permitted for operational switching to accommodate the ngineering Recommendation P28.	Modification Proposal The Modification Proposal was proposed at the NETS SQSS Review Panel meeting on 14 September 2018 where the NETS SQSS Review Panel determined that the Modification Proposal will progress to a Workgroup, subject to ratification of the Terms of Reference.				
		Workgroup The NETS SQSS Review Panel determined that a Workgroup was required to investigate these issues. The Terms of Reference have been agreed by the NETS SQSS Review Panel and a Workgroup has been established with Workgroup Meetings in progress. The Draft Workgroup Report is currently being reviewed by the Workgroup.				
		Industry Consultation This proposed NETS SQSS Modification is open for Industry Consultation. Any interested party is able to make a response in line with the guidance.				
		Modification Report The final Modification Report was circulated and no concerns were raised. All Panel members agreed for GSR025 to go to Authority within 5 working days following Panel Meeting on 16 January 2019				
		Authority Decision & Implementation  This modification was submitted to the Authority for decision and will be implemented following approval plus licence consultation by the Authority.				