

Stage 03: Report to the Authority

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

GSR023: Clarification of the applicability of the N-1-1 Criterion

01	Modification Report
02	Industry Consultation
03	Report to the Authority

This proposal seeks to clarify the interpretation of Section 4.6.6 of the SQSS and the applicability of the N-1-1- Criterion. This report summarises the history and the development of the N-1-1 Criterion, that is securing the system against a concurrent planned outage and a fault outage, that applies to some areas of the National Electricity Transmission System. It proposes the modification is necessary to ensure consistent interpretation of this criterion. It also proposes a minor housekeeping change to reflect the name change of one Transmission Licensee (SHETL to SHET) in both the NETS SQSS and the NETS SQSS Industry Governance Framework.

This report is submitted to the Authority to assist in its decision in relation to the implementation of the NETS SQSS Modification proposed.

Published on: 24 August 2018



National Grid recommends:

Implementation of the modifications proposed to the NETS SQSS



High Impact:

None identified



Medium Impact:

None identified



Low Impact:

Transmission Licensees

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Any Questions?

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About this Document

This Report outlines the information required to form an understanding of the proposed changes to the NETS SQSS and NETS SQSS Industry Governance Framework. These changes are required to clarify the interpretation of the N-1-1 Criterion and incorporate a name change of one of the three Transmission Licensees in both the NETS SQSS and the NETS SQSS Industry Governance Framework.

This Report is intended to provide the Authority with the information necessary to inform their decision on the implementation of the modifications proposed.

The revisions to the NETS SQSS proposed by National Grid and sent to the Authority require approval by that body and will, if approved, come into force from such date (or dates) of which Authorised Electricity Operators will be notified by National Grid, in accordance with the Authority's approval.

Document Control

Version	Date	Author	Change Reference
0.1	31/05/2018	Bieshoy Awad	Draft Consultation Document
0.2	22/06/18	Naomi Davies	Amend for Industry Consultation
0.3	03/08/2018	Shazia Akhtar	Draft Report to Authority

GSR023 Report to the Authority

24/08/2018

Version 0.4

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0.4	24/08/2018	Shazia Akhtar	Final Report submitted to Authority
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Timetable

Modification Proposal submitted to Secretary	1 May 2018
Modification Proposal reviewed at SQSS Panel	9 May 2018
Consultation Document submitted to Panel	31 May 2018
Consultation Document published/closes	25 June 2018/20 July 2018
Consultation Responses circulated to Panel	13 August 2018
Modification Report submitted to Authority	August 2018
Authority Decision	TBC
Implementation Date	TBC

1. Executive Summary

The N-1-1 Criterion

- 1.1 This document includes a summary of the history of the development of the requirement to secure some areas of the National Electricity Transmission System at peak demand conditions against two concurrent outages, N-1-1, on some transmission plant. It details the proposal to modify the relevant clause of the NETS SQSS to ensure clarity in the applicability and scope of this requirement.
- 1.2 Following privatisation, not all License Standards that applied in different transmission areas in GB required the system to be secured for an N-1-1 outage at peak demand conditions. Whereas the NGC SQSS that applied in England and Wales included such requirement, NSP366 that applied in Scotland did not include it. In addition, the calculation of the Nominal Interconnection Capability on the Anglo Scottish boundary was determined based on a double circuit fault criterion, in accordance with the British Grid Systems Agreement (BGSC3A.7), rather than two concurrent single circuit outages.
- 1.3 Neither the first version of the GB SQSS nor any subsequent revision has discussed the extension of the applicability of this criterion to Scotland.
- 1.4 Both National Grid and SP Transmission continued to assess compliance of the boundary between the two transmission areas based on a worst case secured event of a double circuit fault rather than against two concurrent single circuit outages. This was reflected in the calculation of the boundary capability delivered by the Western HVDC Link.
- 1.5 The current wording in the NETS SQSS (Version 2.3) regarding the N-1-1 criteria is not sufficiently clear to prevent a misinterpretation of the criteria. If this misinterpretation were to happen, the capabilities of the affected boundaries would appear much lower than they currently are. This would mean that additional reinforcements would be required to achieve compliance.
- 1.6 This potential misinterpretation has not been an issue prior to the commissioning of the Western HVDC Link as the worst case contingency was a double circuit fault. However, following the commissioning of the Western HVDC Link, the capability of the Anglo Scottish boundary would appear lower if it were to be calculated based on an N-1-1 condition.
- 1.7 It is important to ensure that the intention of the design criteria of Section 4 of the NETS SQSS is clear and is consistent with the principles that were used during the development of the standard. This is to ensure that the requirement to invest in the transmission system and the capabilities reported on different boundaries are consistent with the history and the rationale followed in the development of the criterion.
- 1.8 Therefore, it is necessary to modify the NETS SQSS in order to clarify that the N-1-1 criterion of the NETS SQSS only apply to transmission plant that are wholly within National Grid's transmission area.
- 1.9 The text required to achieve this clarity is minimal and is included in Annex 1

to this document.

A House Keeping Modification

- 1.10 This document includes the changes required to be made to the NETS SQSS and the NETS SQSS Industry Governance Framework to reflect the change of name from Scottish Hydro Electric Transmission Limited (SHETL) to Scottish Hydro Electric Transmission plc (SHET). This change has no impact on the standard as it does not alter the meaning or any other text in the standard.
- 1.11 SHETL is referenced eleven times throughout the current version of the SQSS, specifically within Section 2 (x1), Section 4 (x1), Section 11 (x8) and Appendix D (x1). SHETL is referenced nine times within the Governance Framework which accompanies the standard.
- 1.12 The NETS SQSS text required to enact this change is minimal and is included in Annex 1 to this document.
- 1.13 The changes to the NETS SQSS Industry Governance Framework required to enact this change is minimal and is included in Annex 2 to this document.

Recommendation

- 1.14 The modification proposal GSR023 was presented at the May NETS SQSS Review Panel. The Panel recommended the Report be issued for an Industry Consultation on the changes proposed to the NETS SQSS and NETS SQSS Industry Governance Framework.
- 1.15 This Consultation closed on 20 July 2018, with three responses received. Comments received fully supportive the proposal and can be accessed within Section 7. All respondents recommended that GSR023 should be implemented.
- 1.16 Based on the discussions in this Report and the support received through the Industry Consultation, National Grid recommends that the NETS SQSS and the NETS SQSS Industry Governance are changed to include the modifications detailed in Annex 1 and Annex 2 of this report.
- 1.17 At the NETS SQSS Panel meeting on 20 August 2018, the Panel members considered the representations made in response to the Consultation and unanimously recommended that the modification should be implemented.

2. Purpose & Scope

- 2.1 The NETS SQSS Modification Proposal in relation to clarifying the applicability of the N-1-1 criterion as specified in clause 4.6.6 of the NETS SQSS (on the circuits interconnecting the transmission system in England and Wales on one side and Scotland on the other side) was discussed at the SQSS Panel meeting on 9 May 2018.
- 2.2 The NETS SQSS Review Panel recommended the compilation of a report that
 - 2.2.1 traces the development of the criteria under consideration;
 - 2.2.2 clarifies the reason for the regional differences;
 - 2.2.3 includes recommendations on how to modify the NETS SQSS to provide clarity on the issues; and
 - 2.2.4 considers the suitability of other alternatives, namely a derogation against the said criterion.
- 2.3 The NETS SQSS Review Panel requested that the report incorporates a housekeeping modification to reflect the change of the name of Scottish Hydro Electric Transmission Limited (SHETL) to Scottish Hydro Electric Transmission plc (SHET).

3. Why Change?



Timeline

Issue raised

09 May 2018

Report Submitted to Panel

31 May 2018

- 3.1 Transmission boundary capabilities are calculated using power system studies at the time of the ACS Peak Demand with generation background set up in accordance with Section 4 of the NETS SQSS (Design of the Main Interconnected Transmission System) whilst securing against the most critical secured event defined in Section 4. These values are used to assess compliance, identify the initial need case for reinforcements, for Regulatory Reporting, and in the Electricity Ten Year Statement.
- 3.2 The most critical secured event on the majority of boundaries is a double circuit fault (N-D condition) on the Supergrid. This is an event that all Transmission Licensees are required to secure their system against.
- 3.3 With the Western HVDC Link, it was noted that a planned outage on the link followed by a single circuit fault on the 400kV system, or vice versa, would result in a restriction that exceeds that associated with a double circuit fault outage on the 400kV system. Therefore, were the capabilities of the Anglo Scottish boundary to be assessed based on an N-1-1 condition, it would look significantly lower than its value when assessed based on an N-D condition. This would be inconsistent with the intention of the NETS SQSS and would mean that the further reinforcements are required to achieve the same capability.
- 3.4 In its current form, SQSS Clause 4.6.6 is open to misinterpretation insofar as N-1-1 contingencies could apply to circuits crossing into the Scottish Transmission Network. The commissioning of Western HVDC Link has brought to light the need to clarify treatment of the circuits interconnecting transmission areas with differences in planning criteria.
- 3.5 As a consequence, it has become necessary to clarify the applicability of this specific secured event.

4. The Report

History and Development of the NETS SQSS

- 4.1 Historically, the electricity system in GB comprised three vertically integrated companies. Each company had its own security standards that were developed and maintained as such that they take into account the specific needs of each of the three areas.
- 4.2 The security standards that applied in the three transmission areas following privatisation are listed in Table 1.

Table 1: Summary of Security Standards Applicable Prior to BETTA

Transmission Area	Security Standard Applicable
National Grid	“NGC Transmission System Security and Quality of Supply Standard”
SP Transmission	<p><u>Planning and Development</u></p> <ul style="list-style-type: none"> • TDM13/10,001, “Security of Supply,” Incorporating: <ul style="list-style-type: none"> - Engineering Recommendation P2/5 - NSP366, “Security of the 400kV and 275kV Systems in Scotland”; - “Complexity of circuits”; - Engineering Recommendation P18, “Complexity of 132kV circuits” • The Grid Code • PLM-SP-1 <p><u>Operation</u></p> <ul style="list-style-type: none"> • “Grid Control Instruction (system) BI-SSEB Operational Standards of Security of Supply” • The (Scottish) Grid Code
SHE Transmission	<p><u>Planning and Development</u></p> <ul style="list-style-type: none"> • “NSHEB Planning Document TM9001 (Transmission Planning Standard of Security),” Incorporating: <ul style="list-style-type: none"> - Engineering Recommendation P2/5; - NSP366, “Security of the 400kV and 275kV Systems in Scotland”; - Engineering Recommendation P18, “Complexity of 132kV circuits” • The Grid Code • PLM-SP-1 <p><u>Operation</u></p> <ul style="list-style-type: none"> • “NSHEB System Operation Memorandum No 3” • The (Scottish) Grid Code

- 4.3 The pre-BETTA planning standards shared many similarities yet had some significant differences. The planning standards for the Scottish licensees were almost identical. However, there was a difference in the applicability of NSP366 to the 132kV system between the two companies. The planning criteria in the NGC SQSS were derived directly from PLM-SP-1 and ER P2/5 and hence were very comparable to these standards. The NGC SQSS criteria for the main interconnected system were quite different to that in NSP366.
- 4.4 The development of the interconnection between the three different transmission areas was subject to the British Grid System Agreement. This agreement set out the process, rules, and criteria applicable to the interconnection between National Grid area and SP Transmission area and between SP Transmission area and SHE Transmission area
- 4.5 Following BETTA, the GB SQSS was developed to apply on the onshore transmission system in GB. This standard was derived from its predecessors in order to ensure that the transmission system in GB continued to be developed and operated in accordance with a coordinated set of rules and to allow further harmonisation in the future in areas where there is a proven benefit. However, some regional differences were maintained in the GB SQSS in order to ensure that the security standard is not reduced below the existing standard in any of the three areas whilst not creating new requirements.
- 4.6 The introduction of the offshore criteria into the standard and the development of the current standard, the NETS SQSS, did not have any impact on the regional differences between the three onshore transmission areas.
- 4.7 As a part of the continuous review of the NETS SQSS, and based on the recommendation of the GSR008 Workgroup, some of the differences between the three areas were harmonised although not completely eliminated.

The N-1-1 Criteria – History

- 4.8 The NETS SQSS N-1-1 criteria under consideration is related to the requirement that a Transmission Licensee is required to ensure that their system is secured against two concurrent outages (a planned outage followed by a fault) on two independent transmission circuits at peak demand condition. This requirement is currently referred to in Paragraph 4.6.6 of the NETS SQSS
- 4.9 Prior to BETTA, the N-1-1 criterion did not apply uniformly in all transmission areas in GB. Whereas the NGC SQSS required that this condition is secured in England and Wales, NSP366 did not require it to be secured in Scotland.
- 4.10 The interconnection between National Grid area and SP area was subject to the British Grid Systems Agreement. This agreement defined a Nominal Interconnection Capability for the circuits interconnecting the two licensees' areas. The rules and procedures applicable to long term interconnection planning of these circuits were specified in the British Grid Systems Code No. 3A (BGSC3A). The planning criteria used to derive the Nominal Interconnection Capability were described in BGSC3A.7.
- 4.11 BGSC3A.7.1 specified that the Nominal Interconnection Capability for the circuits interconnecting National Grid's area to SP Transmission's area is

calculated taking into account a double circuit outage. However, BGSC3A.7.2 required that, except as specified in BGSC3A.7.1, each of the two Licensees applies its own License Standards in order to develop their Transmission System that sustains this capability.

- 4.12 At BETTA, the GB SQSS recognised the difference in applicability of the N-1-1 criterion between different transmission areas and maintained the status quo. The issue was addressed in the ofgem/DTI conclusion document published in September 2004 which included the following text:

“To avoid additional investment in Scotland and lowering of security in England and Wales, ‘N-2’ at system peak demand is applied only in England and Wales (NSP 366 requires ‘N-D’ security at system peak demand).”

- 4.13 The introduction of the offshore sections and the creation of the NETS SQSS did not have any impact on the criteria applicable to the Main Interconnected Transmission System and hence, the discrepancy between England and Wales on one side and Scotland on the other side remained unchanged.

- 4.14 [GSR008](#) Workgroup, having considered planned outage patterns and the mean-time-to-repair for transmission circuit, concluded that it is unlikely that there would be any planned single circuit outages at the time of peak demand unless this circuit is required to remain out of service following a fault for an extended period of time. Therefore, this specific criterion was relaxed to apply only where one of the circuits involved has a significant mean-time-to-repair and hence it only covers circuits with

- 4.14.1 a transformer in series,
- 4.14.2 a cable section that is located wholly or mainly outside a substation, or
- 4.14.3 a generating unit,
- 4.14.4 multiple generating units sharing a common circuit breaker,
- 4.14.5 a reactive compensator, or
- 4.14.6 any other reactive power provider

The applicability of the relaxed criterion was not extended to cover Scotland. This is documented in the workgroup report which includes the following text in relation to the N-1-1 criterion:

“This requirement does not apply in the SPT and SHETL transmission areas.”

- 4.15 The Western HVDC Link, although required for NETS SQSS compliance, has been justified by comprehensive Cost Benefit Analysis that was produced by a joint venture between National Grid and SP Transmission and validated by independent consultants. These studies have taken into account the NETS SQSS planning and operational criteria with the boundaries affected required to be secured for single and double circuit faults under year-round conditions.
- 4.16 The capabilities reported in these studies only considered a double circuit outage, in line with the principles of BGSC3A.7, as these principles have not been changed by BETTA or by any subsequent modification.

The N-1-1 Criteria – Legal Text

- 4.17 It was noted that the wording of clause 4.6.6 of the NETS SQSS, the N-1-1 criterion, specifies that both the fault outage and prior outage that are to be considered involve plant in NGET’s transmission area. Whereas this, based on the history discussed in this document, is not intended to cover the circuits interconnecting SP Transmission’s area to NGET’s area or any future circuits interconnecting SHE Transmission’s area to NGET’s area; it could be easily misunderstood to mean that these circuits are covered by the N-1-1 criteria.
- 4.18 the STC’s Joint Planning Committee and the subgroups appointed by this committee have had a number of discussions to address this issue of providing clarity to clause 4.6.6 of the NETS SQSS. These discussions have concluded that the clause should be rephrased to ensure an accurate and clear interpretation that takes into account the history and the development of the clause.
- 4.19 The text that would allow this consistent and clear interpretation of the requirements is included in Annex 1 of this document.

The N-1-1 Criteria – The Option to Apply for a Derogation

- 4.20 A derogation would only be required when the National Electricity Transmission System does not meet a specific requirement. Since it is the view of the affected parties that 4.6.6 does not apply on the Anglo-Scottish boundaries, and since this modification only aims to clarify the existing requirements rather than to reduce them, the view is that this could not be addressed by a derogation.

A House Keeping Change

- 4.21 The NETS SQSS has not yet been updated to reflect the change of name of one of the Onshore Transmission Licensees from “Scottish Hydro Electric Transmission limited” to “Scottish Hydro Electric Transmission plc” on 25th October 2012.
- 4.22 In order to increase process efficiency, Panel agreed that the proposed name change would be better progressed through an amalgamation with this modification proposal which is seeking to remove the ambiguity around the N-1-1 criteria for circuits between the National Grid and the Scottish Transmission Licensees.
- 4.23 Implementing this modification would require a change to affect
- 4.23.1 paragraphs 2.10.3, 4.6.4 and D.2.2 of the NETS SQSS; and
 - 4.23.2 the definitions of Large Power Station, Medium Power Station, Onshore Transmission Licensee, SHETL, and Small Power Station
- 4.24 Implementing this modification would also require a change to the NETS SQSS Industry Governance Framework in which SHETL is referenced nine times at different locations

- 4.25 The text that would allow this change to the NETS SQSS is included in Annex 1 of this document.
- 4.26 The text that would allow this change to the NETS SQSS Industry Governance Framework is included in Annex 1 of this document.

5. Impact & Assessment

Impact on the NETS SQSS

- 5.1 The Proposer recommends amendments to Section 4 of NETS SQSS such that it is clear that the N-1-1 criterion as referenced in clause 4.6.6, does not apply on the circuits interconnecting the Transmission System in England and Wales to that in Scotland.
- 5.2 The Proposer also recommends amendments to Section 2, Section 4, Section 11, and Appendix D of NETS SQSS to reflect the change of name from Scottish Hydro Electric Transmission Limited (SHETL) to Scottish Hydro Electric Transmission plc (SHET).
- 5.3 The text required to give effect to this proposal is contained in Annex 1 of this document.

Impact on the National Electricity Transmission System (NETS)

- 5.4 The modification is a clarification of existing requirements and a minor housekeeping change to reflect an organisational name change. It has no impact on the National Electricity Transmission System.

Impact on Transmission Licensees

- 5.5 The modification clarifies the requirements that are currently applicable and reduces the risk that
 - 5.5.1 these requirements could be misinterpreted in the future; and
 - 5.5.2 the reporting of boundary capabilities is inconsistent with the intention of the NETS SQSS.

Impact on Transmission System Users

- 5.6 The modification is a clarification of existing requirements and a house keeping change. It has no impact on the Transmission System Users.

Assessment Against NETS SQSS Objectives

- 5.7 The Workgroup considers that the proposed amendments would better facilitate the NETS SQSS objectives:

- (i) **facilitate the planning, development and maintenance of an efficient, coordinated and economical system of electricity transmission, and the operation of that system in an efficient, economic and coordinated manner;**

The modification proposal removes the potential for an inconsistent interpretation of the N-1-1 criterion of the NETS SQSS. If this criterion were to be misinterpreted in future, it would result in cost being incurred to make unnecessary reinforcements and would not be economic or efficient.

- (ii) **ensure an appropriate level of security and quality of supply and safe operation of the National Electricity Transmission System;**

The modification proposal has no impact on this NETS SQSS objective.

- (iii) **facilitate effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the distribution of electricity; and**

The modification proposal has no impact on this NETS SQSS objective.

- (iv) **facilitate electricity Transmission Licensees to comply with their obligations under EU law.**

The modification proposal has no impact on this NETS SQSS objective.

Impact on Core Industry Documents

5.8 The proposed modification does not impact on any other core industry documents.

Impact on Other Industry Documents

5.9 The NETS SQSS Industry Governance Framework document will need to be changed only in the sense that the same editorial housekeeping change needs to be made without affecting the principles or function of the document.

Implementation

5.10 Should the proposals be taken forward, the proposed changes should be implemented 10 business days after an Authority decision.

6. Recommendations

- 6.1 It is recommended to amend Section 4 of NETS SQSS such that it is clear that the N-1-1 criterion, clause 4.6.6, does not apply on the circuits interconnecting the Transmission System in England and Wales to that in Scotland.
- 6.2 It is recommended to amend Section 2, Section 4, Section 11, and Appendix D of NETS SQSS such that they reflect the change of name from Scottish Hydro Electric Transmission Limited (SHETL) to Scottish Hydro Electric Transmission plc (SHET).
- 6.3 It is recommended to amend the NETS SQSS Industry Governance Framework such that it reflects the change of name from Scottish Hydro Electric Transmission Limited (SHETL) to Scottish Hydro Electric Transmission plc (SHET).

7. Summary of Consultation Responses

7.1 During the period 25 June 2018 to 20 July 2018, industry was invited to respond to the consultation paper and the following questions:

1. Based on the history and the rationale provided, do you agree that the clause 4.6.6 of the NETS SQSS does not apply to the circuits interconnecting NGET's Transmission Area to SPT's Transmission Area or to SHET's Transmission area? If not, please provide further clarification.
2. Do you agree to the proposal to clarify the 4.6.6 of the NETS SQSS? If not, please provide further clarification.
3. This modification is intended to provide clarification on existing requirement and to ensure that the references to Scottish Hydro-Electric Transmission plc is up to date. It has no impact on investment or operational requirements. Does the text composed comply with these principles? If not, please provide further clarification.
4. Do you believe that GSR023 better facilitates the appropriate NETS SQSS objectives?
5. Do you generally support the modifications outlined in this document? If not, please clarify your concerns.
6. Are there any further considerations that need to be taken into account?
7. Do you agree that the proposed wording effectively resolves the defect?
8. Please provide any other comments you feel are relevant to the proposed changes.

7.2 Three consultation responses were received from Scottish Hydro Electric Transmission PLC, SP Energy Networks and National Grid. These can be read in full in Annex 3.

7.3 All respondents were supportive of the modification and agreed that it better facilitated the objectives of the NETS SQSS and should be implemented.

8. SQSS Panel Recommendation

8.1 The NETS SQSS Panel considered the proposal and the consultation responses when it convened via teleconference on 20 August 2018. The Panel unanimously agreed that the modification to the NETS SQSS was required and instructed the Panel Secretary to send the Final Modification Report to the Authority recommending that the modification be implemented.

Annex 1 Proposed Legal Text for the NETS SQSS

This section contains the proposed legal text to give effect to the proposals. The proposed new text is in red and is based on NETS SQSS Version 2.3, dated February 2017.

2. Generation Connection Criteria Applicable to the *Onshore Transmission System*

:

2.10.3 a *double circuit overhead* line where any part of either circuit is in *NGET's transmission system* or ~~*SHETL's SHET's transmission system*~~;

:

4. Design of the Main Interconnected Transmission System

Minimum *Transmission Capacity* Requirements

At ACS peak demand with an intact system

:

4.6.4 a *double circuit overhead* line where any part of either circuit is in *NGET's transmission system* or ~~*SHETL's SHET's transmission system*~~;

:

4.6.6 provided both the fault outage and prior outage involve plant **that is wholly** in *NGET's transmission area*, any single transmission circuit with the prior outage of another transmission circuit containing either a transformer in series or a cable section located wholly or mainly outside a substation, or a generating unit (or several generating units, sharing a common circuit breaker, that cannot be separately isolated), reactive compensator or other reactive power provider,

:

:

11. Terms and Definitions

Double Circuit Overhead Line	<p>In the case of the <i>onshore transmission system</i>, this is a transmission line which consists of two circuits sharing the same towers for at least one span in <i>SHETL's SHET's transmission system</i> or <i>NGET's transmission system</i> or for at least 2 miles in <i>SPT's transmission system</i>.</p> <p>In the case of an <i>offshore transmission system</i>, this is a transmission line which consists of two circuits sharing the same towers for at least one span.</p>
Large Power Station	<p>A power station which is:</p> <ol style="list-style-type: none">1. directly connected to<ol style="list-style-type: none">a. <i>NGET's transmission system</i> where such <i>power station</i> has a <i>registered capacity</i> of 100MW or more;b. <i>SPT's transmission system</i> where such <i>power station</i> has a <i>registered capacity</i> of 30MW or more; or

- c. ~~SHETL's SHET's~~ transmission system where such power station has a registered capacity of 10MW or more;
- Or
- 2. Embedded within a user system (or part thereof) where such user system (or part thereof) is connected under normal operating conditions to:
 - a. NGET's transmission system where such power station has a registered capacity of 100MW or more; or
 - b. SPT's transmission system where such power station has a registered capacity of 30MW or more; or
 - c. ~~SHETL's SHET's~~ transmission system where such power station has a registered capacity of 10MW or more.
- Or
- 3. In offshore waters, a power station connected to an offshore transmission system with a registered capacity of 10MW or more. In the case of an offshore transmission system, this is a transmission line which consists of two circuits sharing the same towers for at least one span.

Medium Power Station

- A power station which is:
- 1. directly connected to NGET's transmission system where such power station has a registered capacity of 50MW or more, but less than 100MW; or
 - 2. embedded within an user system (or part thereof) where such user system (or part thereof) is connected under normal operating conditions to NGET's transmission system where such power station has a registered capacity of 50MW or more but less than 100MW;

The medium power station category does not exist in SPT's transmission system and ~~SHETL's SHET's~~ transmission system.

Onshore Transmission Licensee

NGET, SPT and ~~SHETL's SHET's~~

~~SHETL SHET~~

Scottish Hydro Electric Transmission Limited plc (No. SC213461) whose registered office is situated at Inveralmond HS, 200 Dunkeld Road, Perth, Perthshire PH1 3AQ.

Small Power Station

- A power station which is:
- 1. directly connected to:
 - a. NGET's transmission system where such power station has a registered capacity of less than 50MW; or
 - b. SPT's transmission system where such power station has a registered capacity of less than 30MW;
 - c. ~~SHETL's SHET's~~ transmission system where such power station has a registered capacity of less than 10 MW;
 - Or

2. embedded within a *user system* (or part thereof) where such *user system* (or part thereof) is connected under normal operating conditions to:
 - a. *NGET's transmission system* where such *power station* has a *registered capacity* of less than 50MW;
 - b. *SPT's transmission system* where such *power station* has a *registered capacity* of less than 30MW;
 - c. *SHETL's SHET's transmission system* where such *power station* has a *registered capacity* of less than 10MW;
- Or
3. In *offshore waters*, a *power station* connected to an *offshore transmission system* with a *registered capacity* of less than 10MW.

Appendix D Application of the *Interconnection Allowance*

:

- D.2.2 the boundary between the two parts lies on the boundary between *SHETL's SHET's transmission system* and *SPT's transmission system*, or between *SPT's transmission system* and *NGET's transmission system*, or entirely within *NGET's transmission system*.

:

SHETL is currently referenced nine times throughout the Governance Framework.

National Electricity Transmission System
Security and Quality of Supply Standard
(NETS SQSS)
Industry Governance Framework

(Revised ~~30 March 2012~~ dd mm 2018)

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1 Definitions and Interpretations

1.1 Definitions

1.1.1 The following words and expressions shall have the following meanings in this document:-

Authority	shall mean the Gas and Electricity Markets Authority. Ofgem is the office of “the Authority”;
Business Day	means any weekday (other than a Saturday) on which banks are open for domestic business in the City of London;
Chair	shall mean the chairman of the Review Panel appointed in accordance with Paragraph 4.3;
Core Industry Documents	shall have the same definition as in the Standard Condition A1 of the Transmission License;
Distribution Network Operator or DNO	shall mean the holder for the time being of a Distribution Licence;
Generator	shall mean a person who generates electricity under licence or exemption under the Act;
Governance Framework	shall mean this NETS SQSS Industry Governance Framework;
Member	shall mean a person duly appointed in accordance with Paragraph 4.6 to be a Member of the Panel;
NETS SQSS or SQSS	means the National Electricity Transmission System Security and Quality of Supply Standard. The SQSS sets out a co-ordinated set of criteria and methodologies that the Transmission Licensees shall use in the planning and operation of the national electricity transmission system;
NGET	shall mean National Grid Electricity Transmission plc with company number 2366977;
Offshore Transmission Owner or OFTO	means a Transmission Licensee in relation to whose Transmission Licence the Standard Conditions in Section E (offshore transmission owner standard conditions) have been given effect;

Panel	shall mean the SQSS Review Panel established by NGET, SHETL-SHET and SPT which shall be constituted in accordance with Section 4;
Secretary	shall mean the secretary of the Review Panel appointed in accordance with Paragraph 4.4;
SHETL-SHET	shall mean Scottish Hydro Electric Transmission Limited plc with company number SC213461;
SPT	shall mean Scottish Power Transmission Limited with company number SC189126;
Transmission Licence	shall mean a transmission licence granted or treated as granted under Section 6(1)(b) of the Electricity Act 1989;
Transmission Licensee	shall mean the holder for the time being of a Transmission Licence;

1.2 Interpretations

- 1.2.1 Except as otherwise provided herein and unless the context otherwise admits, words and expressions used herein shall have the same meaning as defined in the SQSS.
- 1.2.2 Words importing the singular only also include the plural and vice versa where the context requires. Words importing the masculine only also include the feminine.
- 1.2.3 Headings and titles shall not be taken into consideration in the interpretation or construction of the words and expressions used in this Governance Framework.

2 Introduction

- 2.1 The Electricity Act 1989 requires Transmission Licensees to develop and maintain an efficient, co-ordinated and economical system of electricity transmission.
- 2.2 The Transmission Licences place an obligation upon the Transmission Licensees to plan, develop and operate their systems in accordance with, amongst other things, the SQSS. In addition, NGET's Transmission Licence places an obligation on NGET to co-ordinate and direct the flow of electricity onto and over the National Electricity Transmission System, in accordance with, amongst other things, the SQSS.
- 2.3 In order to facilitate these requirements, the SQSS may need, from time to time, to be revised to reflect changes in both the GB Electricity Supply Industry and technological advances.
- 2.4 The Panel is the co-ordinator, not a decision making body. The purpose of the Panel is to consider developments to the SQSS and recommend SQSS changes to the Authority.
- 2.5 The SQSS Governance Framework sets out:
 - 2.5.1 arrangements for the establishment and composition of the Panel; and
 - 2.5.2 the procedure for proposing Modifications to the SQSS.
- 2.6 The SQSS Governance Framework governs the industry led process for reviewing, and proposing Modifications to, the SQSS. This is based on voluntary industry co-operation. The SQSS Governance Framework is not intended to reflect upon the powers and decisions of the Authority in relation to the SQSS.

3 SQSS Objectives

3.1 The Panel shall endeavour at all times to perform its functions to ensure efficient discharge by each of the Transmission Licensees of the obligations imposed upon it under the Electricity Act and its associated licences, specifically focusing on the following objectives:

- (i) facilitate the planning, development and maintenance of an efficient, coordinated and economical system of electricity transmission, and the operation of that system in an efficient, economic and coordinated manner;
- (ii) ensure an appropriate level of security and quality of supply and safe operation of the National Electricity Transmission System;
- (iii) facilitate effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the distribution of electricity; and
- (iv) facilitate electricity Transmission Licensees to comply with their obligations under EU law.

4 Establishment and Composition

4.1 Establishment

4.1.1 NGET, SPT and ~~SHETL-SHET~~ shall establish the Panel which shall be constituted in accordance with the further provisions of this Section 4.

4.1.2 Subject as expressly provided in this Governance Framework, the Members may regulate the conduct of and adjourn and convene Panel meetings as they deem fit.

4.2 Functions of the Panel

4.2.1 The Panel shall consider all reasonable requests to modify the SQSS. Such requests may be made by any of the Members, the Authority or any relevant interested person. SQSS Modification Proposals shall be raised via the Secretary.

4.2.2 The functions of the Panel shall be to:

4.2.2.1 keep the SQSS and its working under review;

4.2.2.2 evaluate and administrate modifications to the SQSS in accordance with procedures set out in the SQSS Governance Framework;

4.2.2.3 keep the SQSS Governance Framework and its working under review;

4.2.2.4 publish recommendations to modify the SQSS and the reasons for the recommendations;

4.2.2.5 recommend to the Authority any modifications of the SQSS; and

4.2.2.6 the Panel shall endeavour at all time to perform its functions:

(a) in an efficient, economical and expeditious manner, taking account of the complexity, importance and urgency of a particular modification to the SQSS; and

(b) with a view to ensuring the SQSS facilitates achievement of its objectives.

4.3 Chair

4.3.1 There shall be a Chair of the Panel who shall be appointed every second year, by the agreement of all Members, from 01 April 2012 or as otherwise agreed by the Members and who shall, taking into account the functions set out in subparagraph 4.3.2, carry out such activities as may be agreed between the Members from time to time.

4.3.2 The functions of the Chair include:

4.3.2.1 to ensure that meetings are conducted in a professional, proper, impartial and efficient manner;

4.3.2.2 to ensure that each Member, any person invited to speak or any representative of the Authority have been given a reasonable opportunity to speak on any matter contained in the agenda for the meeting.

4.3.3 In the event that the Chair is not present within fifteen minutes of the scheduled start of any meeting and has not nominated another person to take the position of Chair, those Members present shall appoint one of their number to act as Chair.

4.4 Secretary

4.4.1 The Panel shall be assisted by a Secretary who shall be a person appointed by NGET. NGET may remove and reappoint the Secretary by giving notice to the Panel.

4.4.2 The Secretary shall carry out such activities as are specified in this Governance Framework and as are otherwise agreed between the Members from time to time.

4.5 Authority

4.5.1 A representative of the Authority shall be entitled to attend Panel meetings as an observer and may speak at any meeting. The Authority shall from time to time notify the Secretary of the identity of the observer. For the avoidance of doubt the Authority representative shall not be considered a Member of the Panel.

4.6 Membership

4.6.1 The Panel shall consist of:-

- (a) a Chair;
- (b) a Secretary appointed by NGET;
- (c) a person appointed by the Authority; and
- (d) the following Members
 - (i) two persons representing NGET ;
 - (ii) two persons representing ~~SHETL~~SHET;
 - (iii) two persons representing SPT;
 - (iv) two persons representing Offshore Transmission Owners
 - (v) a person representing Generators
 - (vi) a person representing Distribution Network Operators

4.6.2 NGET Members

4.6.2.1 NGET is entitled to nominate two Members to attend Panel meetings and may appoint, remove and reappoint Members by giving notice to

the Secretary. For the avoidance of doubt NGET is fulfilling a System Operator and Transmission Owner role.

4.6.3 ~~SHETL-SHET~~ Members

4.6.3.1 ~~SHETL-SHET~~ is entitled to nominate two Members to attend Panel meetings and may appoint, remove and reappoint Members by giving notice to the Secretary.

4.6.4 SPT Members

4.6.4.1 SPT is entitled to nominate two Members to attend Panel meetings and may appoint, remove and reappoint Members by giving notice to the Secretary.

4.6.5 Offshore Transmission Owner Members

4.6.5.1 Offshore Transmission Owners may appoint not more than two Members and not more than two Alternate Members every second year from 01 April 2012 in accordance with Annex 1. Any person shall be eligible for reappointment on expiry of his term.

4.6.5.2 Offshore Transmission Owner Members shall have the duty to impartially represent the views of the Offshore Transmission Owners that they represent.

4.6.6 Generator Member

4.6.6.1 The Panel will agree on an appropriate representative body within the electricity industry to represent the interests of Generators.

4.6.6.2 The agreed representative body is entitled to nominate a Member to attend Panel meetings. The agreed representative body may appoint, remove and reappoint their Member by giving notice to the Secretary.

4.6.7 Distribution Network Operator Member

4.6.7.1 The Panel will agree on an appropriate representative body within the electricity industry to represent the interests of Distribution Network Operators.

4.6.7.2 The agreed representative body is entitled to nominate a Member to attend Panel meetings. The agreed representative body may appoint, remove and reappoint their Member by giving notice to the Secretary.

For the avoidance of doubt the Generator and DNO representative bodies, NGET, ~~SHETL-SHET~~ and SPT are not required to identify Alternate Members as Members are appointed, removed and reappointed by giving notice to the Secretary.

4.7 Meeting Frequency

4.7.1 All meetings shall be called by the Secretary giving notice to Members at least 15 Business Days before that date of the next meeting or such other shorter period

as all the Members may agree. The notice shall set out the date, time and place of the meeting.

4.7.2 The Panel shall hold a minimum of 4 meetings per calendar year at regular intervals as agreed by the Members. Attendance at such meetings may be in person, by teleconference or video conference or in any alternative manner as all the Members may agree and such Members will be counted as present for the purposes of the quorum.

4.8 Meeting Administration

4.8.1 The Secretary will make available to the Panel, not less than 10 Business Days before the date of the meeting or such other shorter period as the Members may agree, an agenda of the matters for consideration at the meeting and any supporting papers for discussion.

4.8.2 An omission to send Panel documents to a person entitled to receive them under sub-paragraph 4.9.2 shall not prevent a Panel meeting from proceeding unless otherwise directed by the Authority.

4.8.3 As soon as is practicable after each Panel meeting, the Secretary shall prepare and send to the Members and the Authority the minutes of such Panel meeting, which shall be approved (or amended and approved) by the Panel at the next Panel meeting after they were so sent and, when approved, the Panel Secretary shall publish the approved minutes (excluding any matter which it was agreed at such Panel meeting was not appropriate for such publication) on the NGET website.

4.9 Quorum

4.9.1 Subject to sub-paragraph 4.9.3, no business shall be transacted at any Panel meeting unless a Quorum (as defined in sub-paragraph 4.9.2) is present.

4.9.2 A quorum shall be constituted where there is at least one Member representing each of NGET, ~~SHETL-SHET~~, SPT and the OFTOs, unless the Secretary and the Panel has been notified in writing by a Member representing NGET, ~~SHETL-SHET~~, SPT or the OFTOs that the matters to be discussed at such Panel meeting do not materially affect it and in which case that Member (with the consent of the other Members forming the quorum) may waive their right to attend.

4.9.3 Where a quorum is not present, the Secretary shall seek to adjourn the Panel meeting to a later date unless it is the third consecutive Panel meeting that has been required to be adjourned as a consequence of the failure to attend by a particular Member, in which case, the Panel meeting shall nonetheless proceed and subsequent ratification of decisions taken at the Panel meeting by such non-attending Member shall not be required unless the lack of attendance by such Member (on any of the three occasions) was as a consequence of an omission to send such Member the details of the Panel meeting required pursuant to sub-paragraph 4.9.2.

4.10 Attendance by Other Persons

4.10.1 A Member may, with the agreement of the other Members, invite any person other than a person already entitled to attend under Paragraph 4.6 to attend any part of a Panel meeting and to speak at such meeting, where that person so attends.

4.11 Removal from Office

4.11.1 A person shall cease to hold office as a Member or an Alternate Member:

- (a) in the case of Offshore Transmission Owner Members only, upon expiry of his term of office unless re-appointed;
- (b) if he:
 - (i) resigns by notice delivered to the Secretary;
 - (ii) becomes bankrupt or makes any arrangement or composition with his creditors generally;
 - (iii) is or may be suffering from mental disorder and either is admitted to hospital in pursuance of an application under the Mental Health Act 1983 or the Mental Health (Scotland) Act 1960 or an order is made by a court having jurisdiction in matters concerning mental disorder for his detention or for the appointment of a receiver, *curator bonis* or other person with respect to his property or affairs;
 - (iv) becomes prohibited by law from being a director of a company under the Companies Act 1985;
 - (v) dies; or
 - (vi) is convicted on an indictable offence; or
- (c) if the Panel resolves (and the Authority does not veto such resolution by notice in writing to the Secretary within 15 Business Days) that he should cease to hold office on grounds of his serious misconduct.

4.11.2 A Panel resolution under Paragraph 4.11.1 (c) shall, notwithstanding any other Paragraph, require the vote in favour of at least all Members less one (other than the Member or Alternate Member who is the subject of such resolution) and for these purposes an abstention shall count as a vote cast in favour of the resolution. A copy of any such resolution shall forthwith be sent to the Authority by the Secretary.

4.11.3 A person shall not qualify for appointment as a Member or Alternate Member if at the time of the proposed appointment he would be required by the above Paragraph to cease to hold that office.

4.11.4 The Secretary shall give prompt notice by electronic means to all Members and the Authority of the appointment or re-appointment of any Member or Alternate Member or of any Member or Alternate Member ceasing to hold office.

5 Modification of the SQSS

5.1 General

5.1.1 Each Member shall keep under review whether any possible change to the SQSS would better facilitate achievement of the SQSS Objectives and shall, in accordance with this Section 5 and to the extent that such matter is not covered by a Modification Proposal, raise a Modification Proposal which, in the Member's opinion, would do so.

5.1.2 The Members shall endeavour at all times to act pursuant to this Section 5:

- (i) in an efficient, economical and expeditious manner taking account of the complexity, importance and urgency of a particular modification proposal; and
- (ii) with a view to ensuring that the SQSS facilitates achievement of the SQSS Objectives.

5.1.3 The SQSS Modification process flow chart is shown in Annex 2. Paragraph 5.2 presents a more detailed account of the Modification process.

5.2 The SQSS Modification Process

5.2.1 Modification Proposal

5.2.1.1 A Modification Proposal may be made by any of the following:

- (a) a Member;
- (b) the Authority; or
- (c) relevant interested person

referred to in this Section 5 as the 'Proposer'.

5.2.1.2 A Modification Proposal made pursuant to sub-paragraph 5.2.1.1 shall be submitted to the Secretary in the form of Annex 3 which may be amended by the Panel from time to time.

5.2.1.3 If a Modification Proposal fails to contain any information required under sub-paragraph 5.2.1.2, the Secretary shall notify the Proposer, who may submit a revised request in compliance with this sub-paragraph 5.2.1.2.

5.2.1.4 Upon receipt of a Modification Proposal made pursuant to and in compliance with sub-paragraph 5.2.1.2, the Secretary shall as soon as reasonably practicable:

- (a) send a copy of the Modification Proposal to the Members, the Authority and any relevant interested person;

- (b) subject to the provisions of Paragraph 4.8, put the request on the agenda for the next Panel meeting; and
- (c) add the new Modification Proposal to the SQSS Modification Register (“Modification Register”) as further provided for and defined in Paragraph 5.2.7.

5.2.1.5 It shall be a condition to the right to raise an SQSS Modification Proposal under this Paragraph 5.2.1 that the Proposer:

- (a) grants a non-exclusive royalty-free licence to all Parties who request the same covering all present and future rights, Intellectual Property Rights and moral rights it may have in such request (as regards use or application in Great Britain and its Offshore Waters); and
- (b) warrants that, to the best of its knowledge, information and belief, no other person has asserted to the Proposer that such person has any Intellectual Property Rights or moral rights or rights of confidence in such proposal inconsistent with the Parties' rights to make, publish or use such request, and, in making a request, a shall be deemed to have granted the licence and given the warranty contained in sub-paragraphs (a) and (b) above respectively.

5.2.1.6 The Proposer may withdraw its Modification Proposal on notice to the Secretary at any time, in which case, the Secretary shall promptly notify the Members and the Authority and then, 5 Business Days after issue of such notice by the Secretary, shall:

- (a) revise the Modification Register; and
- (b) remove the Modification Proposal from the agenda of the next Panel meeting (as relevant);

5.2.2 Review of Modification Proposals at Panel Meetings

5.2.2.1 The Panel shall consider a Modification Proposal (if compliant with sub-paragraph 5.2.1.2 and not withdrawn under sub-paragraph 5.2.1.6) at the next Panel meeting and at such meeting shall use all reasonable endeavours to decide (as and where relevant) whether:

- (a) the Members require additional information in order to assess whether the request would better facilitate achievement of the SQSS Objectives;
- (b) pursuant to sub-paragraph 5.2.2.5, to amalgamate the request with any other Proposed Modification.

5.2.2.2 Where, pursuant to sub-paragraph 5.2.2.1 (a) above, the Panel decides not to take the Modification Proposal further, the Secretary shall notify the Proposer explaining why the proposal has been rejected. The Secretary shall also amend the Modification Register as appropriate.

5.2.2.3 Where, pursuant to sub-paragraph 5.2.2.1 (a) above, the Panel decides that additional information is required or the Panel cannot reach a decision on such matters, the Panel shall refer the Modification Proposal to a Workgroup to carry out such analysis as set out under sub-paragraph 5.2.3.

5.2.2.4 Where, pursuant to sub-paragraph 5.2.2.1 (a) above, the Panel decides that additional information is not required, the Panel shall proceed directly to Industry Consultation under sub-paragraphs 5.2.4.

5.2.2.5 The Panel may decide to amalgamate a Modification Proposal with one or more other Modification Proposal(s) where the subject matter is sufficiently proximate to justify amalgamation on the grounds of efficiency and/or where such Modification Proposal(s) are logically dependent on each other.

5.2.2.6 Where Modification Proposals are amalgamated pursuant to sub-paragraph 5.2.2.5:

- (a) such Modification Proposals shall be treated as a single Modification Proposal;
- (b) references in this Section 5 to a Modification Proposal shall include and apply to a group of two or more Modification Proposals so amalgamated; and
- (c) the Proposers of each such amalgamated Modification Proposal shall cooperate in deciding which of them shall constitute the Proposer of such amalgamated Modification Proposals, failing which agreement, the Modification Proposals shall continue separately as before.

5.2.3 Evaluation and Assessment by a Workgroup

5.2.3.1 Following referral of a Modification Proposal, pursuant to sub-paragraph 5.2.2.3, to a Workgroup, the Panel shall invite representations or commission such studies, convene industry workshops and other evaluation as it deems appropriate in order that the Panel is provided with sufficient information such that it can assess whether the Modification Proposal would better facilitate achievement of the SQSS Objectives.

5.2.3.2 The Panel shall use its reasonable endeavours in order to ensure that evaluation and assessment by a Workgroup takes no longer than 6 months from its referral under sub-paragraph 5.2.2.3 up to the submission of the Workgroup Report to the Panel under sub-paragraph 5.2.3.13 unless otherwise agreed by the Panel.

5.2.3.3 A Workgroup shall comprise at least 5 persons (who may be Panel Members) "Workgroup Quorum" or any such number of persons agreed by the Panel.

5.2.3.4 In addition to the Workgroup Quorum the Panel shall appoint a Workgroup Chair who will ensure that meetings are conducted in a professional, proper, impartial and efficient manner.

5.2.3.5 The Workgroup shall be assisted by a secretary who shall be appointed by the Panel. As soon as is practicable after each Workgroup meeting, the Secretary shall prepare and send to the Workgroup Members the minutes of such Workgroup meeting, which shall be approved (or amended and approved) by the Workgroup at the next Workgroup meeting after they were so sent and, when approved, the secretary shall publish the approved minutes (excluding any matter which it was agreed at such Workgroup meeting was not appropriate for such publication) on the NGET website.

5.2.3.6 A representative of the Authority may attend any meeting of a Workgroup as an observer and may speak at any such meeting.

5.2.3.7 The Panel shall determine the terms of reference of each Workgroup and may change those terms of reference from time to time as it sees fit.

5.2.3.8 The terms of reference for a Workgroup must include provision in respect of the following matters:

- (a) detail the Workgroup's responsibilities for assisting the Panel in the evaluation of the Modification Proposal and consider whether it better facilitates achievement of the SQSS Objectives and to provide additional information to the Panel;
- (b) detail the Modification Proposal;
- (c) detail the work to be undertaken by the Workgroup to assist the Panel in the evaluation of the Modification Proposal;
- (d) specify any matters which the Workgroup should address in its report;
- (e) the timetable for the work to be done by the Workgroup;
- (f) specify if the Workgroup is to comment upon any legal text.

5.2.3.9 Unless otherwise determined by the Panel the Workgroup shall develop and adopt its own internal working procedures for the conduct of its business.

5.2.3.10 A Workgroup Report will be submitted to the Panel responding to the matters detailed in the terms of reference and in accordance with the timetable set out in the terms of reference and will indicate the issues and views which arose in the Workgroup discussions and any recommendations made.

- 5.2.3.11 If a Workgroup is unable to reach agreement on any such matter, the Workgroup Report must reflect the views of the members of the Workgroup.
- 5.2.3.12 The Workgroup Report will be circulated in draft form to the Workgroup members for a period of not less than 5 Business Days for comment. Any unresolved comments made shall be reflected in the final Workgroup Report.
- 5.2.3.13 The final Workgroup Report shall be submitted to the Panel. Upon receipt of the Workgroup Report, the Secretary shall as soon as reasonably practicable:
- (a) send a copy of the Workgroup Report to the Members and the Authority; and
 - (b) subject to the provisions of Paragraph 4.8.1, put the Workgroup Report on the agenda for the next Panel meeting;
- 5.2.3.14 The Workgroup Chair or another person (nominated by the Workgroup Chair) shall be present at the Panel meeting at which that Workgroup Report is to be discussed and may be invited to present the findings and/or answer the questions of Panel Members.
- 5.2.3.15 Following receipt of any representations, study, Workgroup Report or other evaluation pursuant to sub-paragraph 5.2.3.1, the Panel shall consider whether the information provided is sufficient to form a view as to whether the Modification Proposal better facilitates achievement of the SQSS Objectives and may invite such further representations, studies, and other evaluation including sending matters back to the Workgroup as it deems appropriate until the Panel considers that the information provided is sufficient.

5.2.4 Industry Consultation

- 5.2.4.1 Following completion of the steps set out in sub-paragraphs 5.2.3.1 to 5.2.3.15 above (where relevant), the Secretary shall prepare a consultation document ("Consultation Document") setting out:
- (a) the Modification Proposal;
 - (b) the views and recommendations of the Panel as to whether the changes proposed in the Modification Proposal(s) should be made, including the analysis of whether (and, if so, to what extent) the Modification Proposal(s) would better facilitate achievement of the SQSS Objectives and the views and rationale in respect thereof;
 - (c) an analysis and impact assessment ("Assessment") which shall identify the likely effect of the Modification Proposal(s) on the assets and systems of Panel Members), including a description of any works necessary to implement the change and an

estimate of the development, capital and operating costs associated with implementing the changes to the SQSS;

- (d) the proposed implementation date of the Modification Proposal(s) as agreed by the Panel, failing which, as shall be proposed by the Proposer and, in the later case, accompanied by the written representations of the other Members giving their own opinion as to what the implementation date should be; and
- (e) any proposed text to modify the SQSS
- (f) (to the extent that such matters are not included pursuant to sub-paragraph (c)), an analysis of:
 - (i) the impact of the Modification Proposal(s) on the Core Industry Documents;
 - (ii) the changes which would be required to give effect to the Modification Proposal(s) in relation to the Core industry Documents;
 - (iii) the mechanism and likely timescale for making the changes referred to in sub-paragraph (ii);
 - (iv) the changes or developments which would be required to central computer systems and, if practicable, processes used in connection with the operation of arrangements established under the Core Industry Documents;
 - (v) the mechanism and likely timescale for making the changes referred to in sub-paragraph (iv);
 - (vi) an estimate of the costs associated with making and delivering the changes referred to in sub-paragraphs (ii) and (iv), such costs being expected to relate to: for (ii), the costs of implementing Modifications to the Industry Framework Document(s), and for (iv), the costs of changes to computer systems and possibly processes which are established for the operation of the Core industry Documents,

together with a summary of representations of the Panel in relation to such matters,

5.2.4.2 Pursuant to sub-paragraph 5.2.4.1, the Secretary shall:

- (a) circulate the Consultation Document to each of the Members and such persons or bodies as have responsibility for progressing changes to the Core Industry Documents and publish it on the NGET website or otherwise in such manner as may be deemed appropriate by the Members to bring it to the attention of other persons who may have a relevant interest in the Modification Proposal;

- (b) invite representations in relation to the Consultation Document within 20 Business Days or such other period as the Panel shall determine; and
- (c) on receipt of representations pursuant to sub-paragraph (b), prepare a summary of such representations.

5.2.5 The Modification Report

5.2.5.1 Pursuant to sub-paragraph 5.2.4.2, the Panel shall consider the representations made in response to the Consultation Document and shall instruct the Secretary to prepare a report as in sub-paragraph 5.2.4.1 incorporating comments from the Consultation Document respondents and recommendations in light of those comments. This report shall form the "Modification Report"

5.2.5.2 If Members agree that Modification to the SQSS is not required, the Panel shall instruct the Secretary to prepare the Modification Report and send it to the Authority. The Secretary shall also update the Modification Register and publish the Modification Report on the NGET website.

5.2.5.3 If Members agree that Modification to the SQSS is required, the Panel shall instruct the Secretary to prepare the Modification Report and send it to the Authority. Each Transmission Licensee Member will individually send a licence change request to the Authority based on the Modification Report. The Secretary shall also update the Modification Register and publish the Modification Report on the NGET website.

5.2.5.4 If not all Members agree that Modification to the SQSS is needed, the Secretary shall record the range of recommendations which shall be incorporated into the Modification Report. The Panel shall instruct the Secretary or Workgroup Chair to prepare the Modification Report for subsequent submission to the Authority. Those Transmission Licensee Members that recommend Modification to the SQSS may send licence change requests to the Authority. The Secretary shall also update the Modification Register and publish the Modification Report on the NGET website.

5.2.5.5 None of the facts, opinions or statements contained in the Modification Report may be relied upon by any other person.

5.2.6 Further versions of SQSS

5.2.6.1 If the Authority directs a change to the SQSS the Secretary shall provide a revised version of the SQSS in accordance with the terms of such notice, update the Modification Register and publish the revised SQSS on the NGET website. The Transmission Licensees shall continue to apply the version of the SQSS referred to in their Transmission Licence.

5.2.6.2 A Modification to the SQSS shall take effect from the date and time as specified in the direction referred to in sub-paragraph 5.2.6.1.

5.2.6.3 The relevant Members shall be responsible for implementing any changes to their¹⁹ relevant computer systems and processes as

necessary to effect the Approved Modification in accordance with this sub-paragraph 5.2.6.

5.2.6.4 Following implementation of licence changes by the Authority in relation to Approved Modifications, each relevant Member shall:

- (a) use its reasonable endeavours to progress changes made to the Core Industry Documents (to the extent that it is a party to them) in order to give full and timely effect to a Modification to the SQSS by the implementation date;
- (b) do what is required to those of its systems and processes which support the operation of the SQSS as may be necessary in order to give full and timely effect to a Modification to the SQSS by the implementation date; and
- (c) keep the Panel informed of any matter that may affect the ability for the implementation date to be met.

5.2.6.5 Without prejudice to the obligations of the Members under this sub-paragraph 5.2.6, the implementation date may be extended or shortened with the prior approval of, or at the direction of, the Authority.

5.2.6.6 Any relevant Member shall apply to the Authority for an extension of the implementation date if it becomes aware of any circumstances that are likely to cause a delay in the implementation of an Approved Modification.

5.2.6.7 A Modification made pursuant to and in accordance with this Paragraph 5.2 shall not be impaired or invalidated in any way by any inadvertent failure to comply with or give effect to this sub-paragraph 5.2.6.

5.2.7 The Modification Register

5.2.7.1 The Secretary shall establish and maintain a register (the "Modification Register") which shall record, in such form as the Panel may determine, the matters set out in sub-paragraph 5.2.8.3.

5.2.7.2 The purpose of the Modification Register shall be to assist the Panel in the operation of the Modification process under this Governance Framework and to enable the Members and other interested third parties to be reasonably informed of the progress of Modification Proposals and Approved Modifications from time to time.

5.2.7.3 The Modification Register shall record:

- (a) details of each Modification Proposal (including the name of the Proposer, the date raised and a brief description of the Modification Proposal);

- (b) the current status and progress of each Modification Proposal and the anticipated date for reporting to the Authority in respect thereof;
- (c) the current status and progress of each Approved Modification to the SQSS; and
- (d) such other matters as the Panel may consider appropriate from time to time in order to achieve the purposes set out in sub-paragraph 5.2.7.2.

5.2.7.4 The Modification Register shall, in addition to those matters set out in sub-paragraphs 5.2.7.3, also include details of:

- (a) each Modification Proposal which has been withdrawn pursuant to sub-paragraph 5.2.1.6 or rejected by the Panel; and
- (b) each Modification to the SQSS which has been implemented pursuant to sub-paragraph 5.2.7,

for a period of 6 months after such withdrawal, rejection or implementation, or such longer period as the Panel may determine.

5.2.7.5 The Secretary shall publish the Modification Register (as updated from time to time and indicating the revisions since the previous issue) on the NGET website with such frequency as the Panel may agree, in order to bring it to the attention of interested third parties.

Annex 1 - Offshore Transmission Owner Election Process

A1.1 General

A1.1.1 Introduction

A1.1.1.1 This Annex 1 sets out the basis for election of Offshore Transmission

Owner Members and Offshore Transmission Owner Alternate Members which will apply except to the extent that the conditions in A1.1.1.5 are met.

A1.1.1.2 This Annex 1 shall apply:

(a) in relation to each year (the "Election Year") in which the term of office of Offshore Transmission Owner Members and Offshore Transmission Owner Alternate Members expires, for the purposes of electing Offshore Transmission Owner Members and Offshore Transmission Owner Alternate Members to hold office with effect from 01 April in that year;

(b) subject to and in accordance with Paragraph A1.4, upon a Offshore Transmission Owner Member and/or Offshore Transmission Owner Alternate Member ceasing to hold office before the expiry of his term of office.

A1.1.1.3 For the purposes of an election under Paragraph A1.1.1.2(a) references to Offshore Transmission Owner are to persons who are an Offshore Transmission Owner as at 01 January in the Election Year.

A1.1.1.4 The Secretary shall administer each election of Offshore Transmission Owner Members and Offshore Transmission Owner Alternate Members pursuant to this Annex 1.

A1.1.1.5 Where the following conditions (a) and (b) in this Paragraph A1.1.1.5

are met, the Offshore Transmission Owner Member(s) and/or Offshore Transmission Owner Alternate Member(s) will be those notified to the Secretary as set out below:

(a) each Offshore Transmission Owner Member as at 01 January in the relevant Election Year, has confirmed in writing to the Secretary that the Offshore Transmission Owner Member(s) and/or Offshore Transmission Owner Alternate Member(s) will be elected in accordance with a process other than that set out in Annex 1 ("Alternative OFTO Election Process"); and

- (b) each Offshore Transmission Owner Member as at 01 January in the relevant Election Year, has notified the Secretary in writing by 25 January of the relevant Election Year of the identity of the Offshore Transmission Owner Member(s) and/or Offshore Transmission Owner Alternate Member(s) elected through the Alternative OFTO Election Process, and each notification identifies the same individual(s).

Upon receipt of such notifications in accordance with the above, the provisions of this Annex 1, with exception of Paragraph A1.1.1.4, shall not apply until the following Election Year.

A1.1.2 Election timetable

A1.1.2.1 The Secretary shall not later than 01 February in the Election Year prepare and circulate to all Offshore Transmission Owners (by publication on the NGET Website and, where relevant details are supplied, by electronic mail), with a copy to the Authority, an invitation to nominate candidates who must be willing to be either a Offshore Transmission Owner Member or an Alternate Member and a timetable for the election (the "Election Timetable"), setting out:

- (a) the date by which nominations of candidates are to be received, which shall not be less than three (3) weeks after the timetable is circulated;
- (b) the date by which the Secretary shall circulate a list of candidates and voting papers;
- (c) the date by which voting papers are to be submitted, which shall not be less than three (3) weeks after the date for circulating voting papers;
- (d) the date by which the results of the election will be made known, which shall not be later than 18 March in the Election Year.

A1.1.2.2 If for any reason it is not practicable to establish an Election Timetable in accordance with Paragraph A1.2.1.1 or to proceed on the basis of an Election Timetable which has been established, the Secretary may establish a different timetable, or revise the Election Timetable, by notice to all Offshore Transmission Owners, the Panel and the Authority, provided that such timetable or revised timetable shall provide for the election to be completed before 01 April in the Election Year.

A1.1.2.3 A nomination or voting paper received by the Secretary later than the respective required date under the Election Timetable (subject

to any revision under Paragraph A1.1.2.2) shall be disregarded in the election.

A1.2. **CANDIDATES**

A1.2.1 **Nominations**

A1.2.1.1 Nominations for candidates shall be made in accordance with the Election Timetable.

A1.2.1.2 Subject to Paragraph A1.1.1.3, each Offshore Transmission Owner may nominate one candidate for election by giving notice to the Secretary.

A1.2.2 **List of candidates**

A1.2.2.1 The Secretary shall draw up a list of the nominated candidates and circulate the list to all Offshore Transmission Owners by the date specified in the Election Timetable.

A1.2.2.2 The list shall specify the Offshore Transmission Owner by whom each candidate was nominated and any affiliations which the candidate may wish to have drawn to the attention of Offshore Transmission Owners.

A1.2.2.3 Except where Paragraphs A1.4.3 or A1.4.4 apply, if two (2) or fewer candidates are nominated no further steps in the election shall take place and such candidate(s) shall be treated as elected as Offshore Transmission Owner Members and Paragraph A1.3.2.4 shall apply in relation to such candidate(s).

A1.2.2.4 Where Paragraph A1.4.3 applies, if only one (1) candidate is nominated, no further steps in the election shall take place and such candidate shall be treated as elected as a Member and Paragraph A1.3.2.4 shall apply in relation to such candidate.

A1.2.2.5 Where Paragraph A1.4.4 applies, if two (2) or fewer candidates are nominated, no further steps in the election shall take place and such candidate(s) shall be treated as elected as Alternate Members and Paragraph A1.3.2.4 shall apply in relation to such candidate(s).

A1.3 **VOTING**

A1.3.1 **Voting papers**

A1.3.1.1 Voting papers shall be submitted in accordance with the Election Timetable.

A1.3.1.2 Each Offshore Transmission Owner may submit one voting paper.

A1.3.2 Preference votes and voting rounds

A1.3.2.1 Each Offshore Transmission Owner submitting a voting paper shall vote by indicating on the voting paper a first, second and third preference ("Preference Votes") among the candidates.

A1.3.2.2 A voting paper need not indicate a second, or a third, preference, but the same candidate may not receive more than one Preference Vote in a voting paper.

A1.3.2.3 Candidates shall be elected in three voting rounds (together where necessary with a further round under Paragraph A1.3.6) in accordance with the further provisions of this Paragraph A1.3.

A1.3.2.4 The Secretary shall determine which candidates are elected and announce (to the Authority and all Offshore Transmission Owners) the results of the election in accordance with the Election Timetable.

A1.3.2.5 The Secretary shall not disclose the Preference Votes cast by Offshore Transmission Owners or received by candidates; but a Offshore Transmission Owner may request that the Authority scrutinise the conduct of the election, provided that such Offshore Transmission Owner shall bear the costs incurred by the Authority in doing so unless the Authority recommends that the election results should be annulled.

A1.3.2.6 Further references to voting papers in this Paragraph A1.3 do not include voting papers which are invalid or are to be disregarded (i.e. voting papers not made or submitted in accordance with this Annex 1).

A1.3.3 First voting round

A1.3.3.1 In the first voting round:

(a) the number of first Preference Votes allocated under all voting papers to each candidate shall be determined.

(b) the first round qualifying total shall

$$\text{be: } (T / N) + 1$$

Where

T is the total number of first Preference Votes in all voting papers;

N is the number of Offshore Transmission Owners' Members and/or Alternate Members to be elected.

A1.3.3.2 If the number of first Preference Votes allocated to any candidate is equal to or greater than the first round qualifying total, that candidate shall be elected.

A1.3.4 **Second voting round**

A1.3.4.1 In the second voting round:

(a) the remaining candidates are those which were not elected in the first voting round;

(b) the remaining voting papers are voting papers other than those under which the first Preference Votes were for candidates elected in the first voting round;

(c) the number of first and second Preference Votes allocated under all remaining voting papers to each remaining candidate shall be determined;

(d) the second round qualifying total shall

be $(T' / N') + 1$

Where

T' is the total number of first Preference Votes and second Preference Votes allocated under all remaining voting papers;

N' is the number of Members and/or Alternate Members remaining to be elected after the first voting round.

A1.3.4.2 If the number of first and second Preference Votes allocated to any remaining candidate is equal to or greater than the second round qualifying total, that candidate shall be elected.

A1.3.5 **Third voting round**

A1.3.5.1 In the third voting round:

(a) the remaining candidates are those which were not elected in the first or second voting rounds;

- (b) the remaining voting papers are voting papers other than those under which the first or second Preference Votes were for candidates elected in the first or second voting rounds;
- (c) the number of first, second and third Preference Votes allocated under all remaining voting papers to each remaining candidate shall be determined;
- (d) the third round qualifying total shall

$$\text{be } (T'' / N'') + 1$$

Where

T'' is the total number of first Preference Votes, second Preference Votes and third Preference Votes allocated under all remaining voting papers;

N'' is the number of Members remaining to be elected after the first and second voting rounds.

- A1.3.5.2 If the number of first, second and third Preference Votes allocated to any remaining candidate is equal to or greater than the third round qualifying total, that candidate shall be elected.

A1.3.6 **Further provisions**

- A1.3.6.1 If after any voting round the number of candidates achieving the required Preference Votes threshold exceeds the number of persons remaining to be elected, the following tie-break provisions shall apply between the tied candidates. In addition, if after the third voting round any Member(s) or Alternate Member(s) remain to be elected the following tie-break provisions shall apply between the remaining candidates:

- (a) the tied or remaining candidates (as applicable) shall be ranked in order of the number of first Preference Votes allocated to them, and the candidate(s) with the greatest number of such votes shall be elected;
- (b) in the event of a tie between two or more candidates within Paragraph (a), the candidate(s) (among those tied) with the greatest number of second Preference Votes shall be elected;
- (c) in the event of a tie between two or more candidates within Paragraph (b), the Secretary shall select the candidate(s) (among those tied) to be elected by drawing lots.

A1.3.7 Members and Alternate Members

A1.3.7.1 Except where Paragraphs A1.4.3 or A1.4.4 apply, the two (2) candidates receiving the greatest number of votes shall be elected as Offshore Transmission Owners' Members and the next two (2) shall be elected as Offshore Transmission Owners' Alternate Members.

A1.3.7.2 Where Paragraph A1.4.3 applies the number of candidate(s) up to and including the number of Member Interim Vacancies receiving the greatest number of votes pursuant to the Interim Panel and Alternate Election Process shall be elected as Offshore Transmission Owners' Member(s) and the remaining candidates up to and including the number of Alternate Member Interim Vacancies receiving the greatest number of votes shall be elected as Alternate Member(s).

A1.3.7.3 Where Paragraph A1.4.4 applies the two (2) candidates receiving the greatest number of votes pursuant to the Alternate Election Process shall be elected as Alternate Members.

A1.4 VACANCIES

A1.4.1 General

A1.4.1.1 If a Member ceases to hold office pursuant to Paragraph 4.11.1 (b) (i) then Paragraph A1.4.2 shall apply.

A1.4.1.2 If a Member ceases to hold office pursuant to Paragraph 4.11.1 (a), 4.11.1 (b) (ii) to (vi) (inclusive) or 4.11.1 (c) then Paragraph A1.4.3 shall apply.

A1.4.1.3 If an Alternate Member ceases to hold office pursuant to Paragraph 4.11 (the "Resigning" Alternate Member) then Paragraph A1.4.4 shall apply.

A1.4.1.4 The provisions of Paragraph A1.2.1.2 shall apply, mutatis mutandis, to any replacement Member or any replacement Alternate Member under this Paragraph A1.4.

A1.4.2 Replacement of a Member who ceases to hold office pursuant to Paragraph 4.11.1 (b) (i)

A1.4.2.1 Where this Paragraph A1.4.2 applies, and in accordance with the duties set out in Paragraph 4.2, such Member may appoint a replacement Member (subject to Paragraph A1.4.2.2) for the remainder of the term of office of such Member and shall notify the Secretary of a replacement Member at the same time as they

resign. If such Member does not appoint a replacement at the time of notifying the Secretary of their resignation then such Member will be replaced in accordance with Paragraph A1.4.3 and this Paragraph A1.4.2.1 shall no longer apply.

A1.4.2.2 A Member shall only appoint an Alternate Member to be his replacement pursuant to Paragraph A1.4.2.1 and such Alternate Member chosen to be a Member shall then become a Resigning Alternate Member and be replaced in accordance with Paragraph A1.4.4.

A1.4.3 Replacement of a Member who ceases to hold office pursuant to Paragraph 4.11.1 (a), 4.11.1 (b) (ii) to (vi) or 4.11.1 (c)

A1.4.3.1 Subject to Paragraph A1.4.3.2, such Member shall, where one or more Alternate Member(s) hold office, be replaced by the Alternate Member who previously received the highest number of cumulative Preference Votes but if there were a tie-break in relation to such Preference Votes then the tie-break provisions set out in Paragraph A1.3.6.1 shall apply, in either circumstance such Alternate Member selected to be a Member shall then become a Resigning Alternate Member and be replaced in accordance with Paragraph A1.4.4.

A1.4.3.2 If there are no Alternate Members in office upon a Member ceasing to hold office then:

- (a) Where there are not less than six (6) months remaining until the next full election further Members shall be elected in accordance with Paragraphs A1.2, A1.3 and subject to the following Paragraphs A1.4.3.3 to A1.4.3.5 (inclusive) (the "Interim Panel and Alternate Election Process").
- (b) Where there are less than six (6) months remaining until the next full election no further Members or Alternate Members shall be elected pursuant to this Paragraph A1.4.3 and the positions shall remain vacant until the next full election.

A1.4.3.3 Where this Paragraph A1.4.3.3 applies the Secretary shall indicate in the invitation referred to at Paragraph A1.1.2.1 the number of vacancies for both Member(s) ("Member Interim Vacancies") and Alternate Member(s) ("Alternate Member Interim Vacancies") for which the Interim Panel and Alternate Election Process is being held.

A1.4.3.4 Any Member(s) or Alternate Member(s) elected pursuant to the Interim Panel and Alternate Election Process shall cease to hold office at the next full election.

A1.4.3.5 The timetable for the Interim Panel and Alternate Election Process shall be expedited and the Secretary shall prepare a timetable accordingly.

A1.4.4 Replacement of a Resigning Alternate Member

A1.4.4.1 Subject to Paragraph A1.4.4.2 a Resigning Alternate Member shall not be replaced.

A1.4.4.2 If there are no Alternate Members remaining in office following the resignation of an Alternate Member or their appointment as a Member in accordance with A1.4.2 or A1.4.3 then:

(a) Where there are not less than six (6) months remaining until the next full election further Alternate Members shall be elected in accordance with Paragraphs A1.2, A1.3 and subject to the following paragraphs A1.4.4.3 to A1.4.4.5 (inclusive) (the "Alternate Election Process").

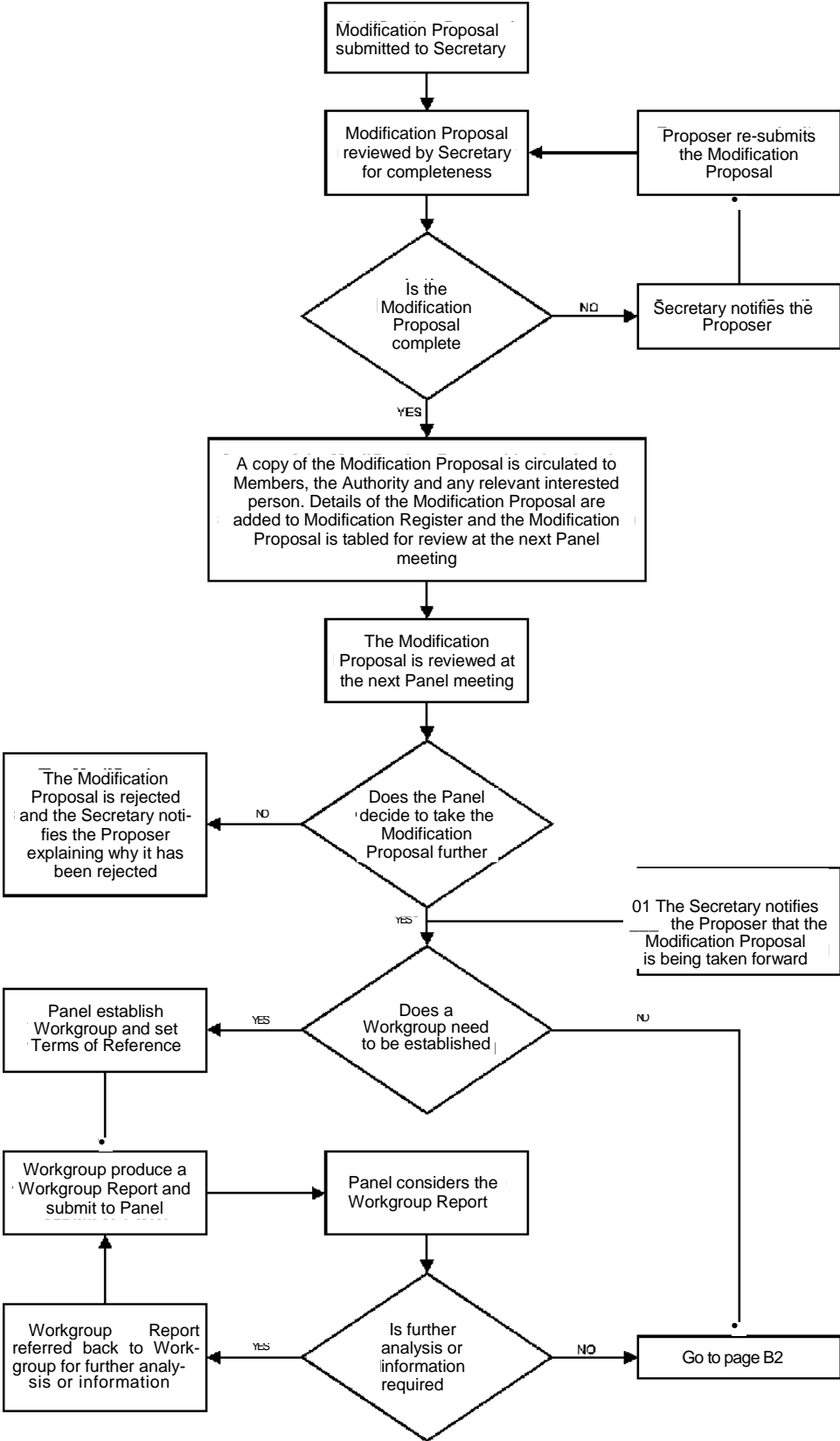
(b) Where there are less than six (6) months remaining until the next full election no further Alternate Members shall be elected and the positions shall remain vacant until the next full election.

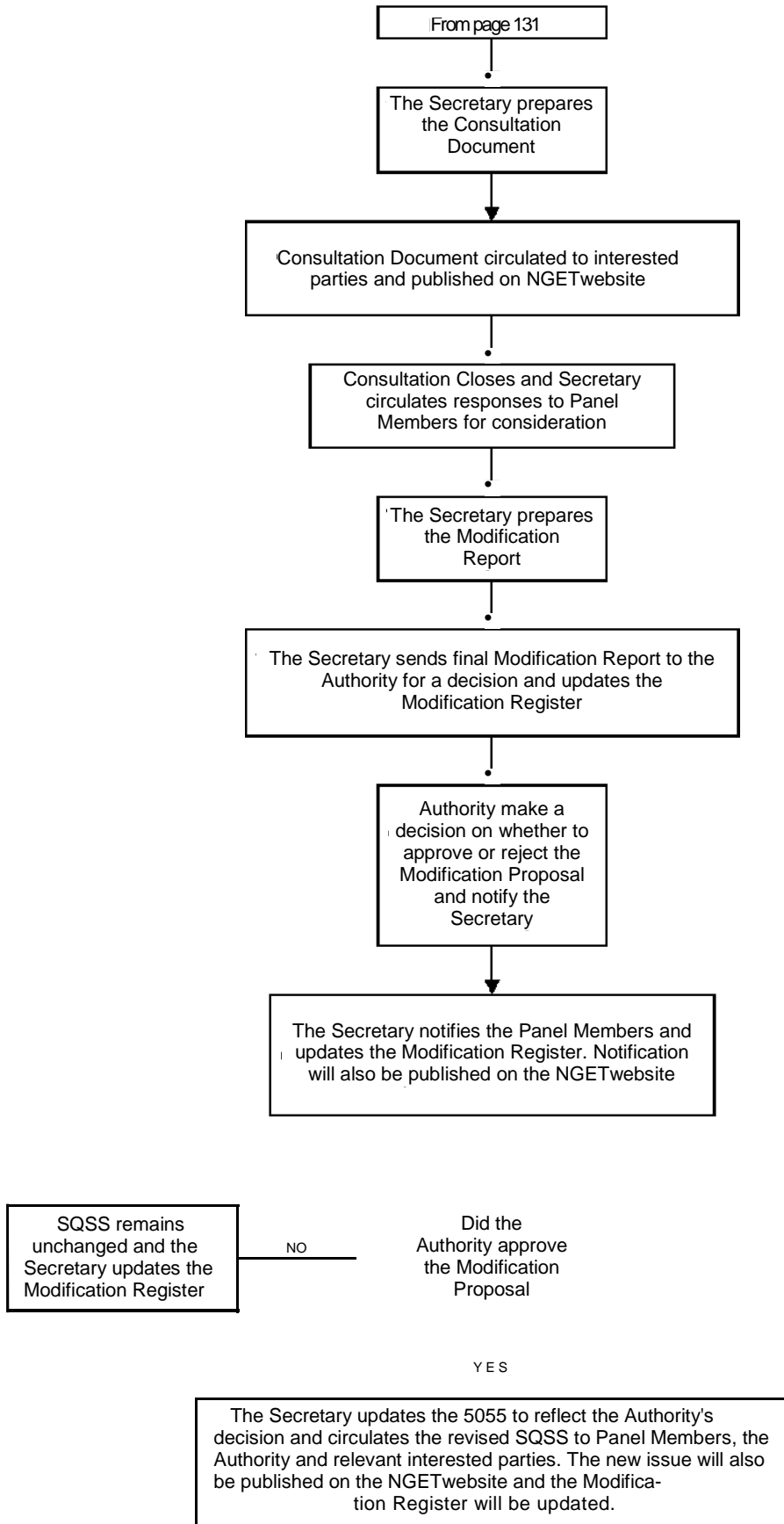
A1.4.4.3 Where this Paragraph A1.4.4.3 applies, a reference in Paragraphs A1.2 and A1.3 to an Offshore Transmission Owners' Member shall not apply except in the case of Paragraph A1.3.5.1 (d) where the reference to "Members" shall be read and construed as a reference to "Alternate Members".

A1.4.4.4 Any Alternate Member(s) elected pursuant to the Alternate Election Process shall cease to hold office at the next full election.

A1.4.4.5 The timetable for the Alternate Election Process shall be expedited and the Secretary shall prepare a timetable accordingly.

Annex 2 - SQSS Modification Process Flow Chart





Annex 3 - Modification Proposal Form

A copy of the Modification Proposal Form can be found electronically on the NGET website at:

<http://www.nationalgrid.com/uk/Electricity/Codes/gbsqsscode/DocLibrary/reviewdocs/>

NETS SQSS and Grid Code Industry Consultation Response Proforma

GSR023 Clarification of the applicability of the N-1-1 Criterion and minor housekeeping change

Views are invited upon the proposals outlined in this consultation. Please submit your formal responses on this form to box.SQSS@nationalgrid.com no later than **5pm on 20 July 2018**.

The proposals set out in this consultation are intended to better meet the NETS SQSS Objectives. To achieve this, they are intended to facilitate efficient and economic connection arrangements whilst ensuring there is no impact on the safety and security of the transmission system.

These responses will be included in the Report to the Authority which is drafted by National Grid and submitted to the Authority for a decision.

Respondent:	David Adam Network Planning & Regulation
Company Name:	SP Energy Networks
1. Based on the history and the rationale provided, do you agree that clause 4.6.6 of the NETS SQSS does not apply to the circuits interconnecting NGET's Transmission Area to SPT's Transmission Area or to SHET's Transmission Area? If not, please provide further clarification.	We agree that clause 4.6.6 of the NETS SQSS does not apply to the circuits which interconnect NGET's transmission system to the SPT transmission system.
2. Do you agree to the proposal to clarify clause 4.6.6 of the NETS SQSS? If not, please provide further clarification.	We support the proposal to clarify clause 4.6.6 of the NETS SQSS.
3. This modification is intended to provide clarification on existing requirements and to ensure that the references to the Scottish Hydro-Electric Transmission plc is up to date. It has no impact on investment or operational requirements. Does the text composed comply with these principles?	Yes.

If not, please provide further clarification.	
4. Do you believe that GSR023 better facilitates the appropriate NETS SQSS objectives?	Yes, as the modification proposed clarifies the requirements of the standard.
5. Do you generally support the modifications outlined in this document? If not, please clarify your concerns.	Yes.
6. Are there any further considerations that need to be taken into account?	Not at this time.
7. Do you agree that the proposed wording effectively resolves the defect?	Yes.
8. Please provide any other comments you feel are relevant to the proposed changes.	None at this time.

If you wish to submit a confidential response please note the following:

- i. Information provided in response to this consultation will be published on National Grid's website unless the response is clearly marked "Private and Confidential". We will contact you to establish the extent of the confidentiality. A response marked "Private and Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the NETS SQSS Review Panel and/or Grid Code Review Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.
- ii. Please note an automatic confidentiality disclaimer generated by your IT System will not in itself mean that your response is treated as if it had been marked "Private and Confidential".

GSR023 Clarification of the applicability of the N-1-1 Criterion and minor housekeeping change

Views are invited upon the proposals outlined in this consultation. Please submit your formal responses on this form to box.SQSS@nationalgrid.com no later than **5pm on 20 July 2018**.

The proposals set out in this consultation are intended to better meet the NETS SQSS Objectives. To achieve this, they are intended to facilitate efficient and economic connection arrangements whilst ensuring there is no impact on the safety and security of the transmission system.

These responses will be included in the Report to the Authority which is drafted by National Grid and submitted to the Authority for a decision.

Respondent:	<i>Rachel Woodbridge-Stocks Rachel.woodbridgestocks@nationalgrid.com</i>
Company Name:	<i>National Grid – Electricity System Operator</i>
9. Based on the history and the rationale provided, do you agree that clause 4.6.6 of the NETS SQSS does not apply to the circuits interconnecting NGET’s Transmission Area to SPT’s Transmission Area or to SHET’s Transmission Area? If not, please provide further clarification.	Yes
10. Do you agree to the proposal to clarify clause 4.6.6 of the NETS SQSS? If not, please provide further clarification.	Yes
11. This modification is intended to provide clarification on existing requirements and to ensure that the references to the Scottish Hydro-Electric Transmission plc is up to date. It has no impact on investment or operational requirements. Does the text composed comply with these principles?	Yes

<p>If not, please provide further clarification.</p>	
<p>12. Do you believe that GSR023 better facilitates the appropriate NETS SQSS objectives?</p>	<p><i>GSR023 better facilitates objective (i):</i></p> <p><i>(i) facilitate the planning, development and maintenance of an efficient, coordinated and economical system of electricity transmission, and the operation of that system in an efficient, economic and coordinated manner;</i></p> <p><i>By removing ambiguity around when to apply the N-1-1 criterion, we are preventing costs being incurred to make unnecessary reinforcements, and therefore ensuring an economical and efficient transmission system is maintained.</i></p>
<p>13. Do you generally support the modifications outlined in this document? If not, please clarify your concerns.</p>	<p>Yes</p>
<p>14. Are there any further considerations that need to be taken into account?</p>	<p>No</p>
<p>15. Do you agree that the proposed wording effectively resolves the defect?</p>	<p>Yes</p>
<p>16. Please provide any other comments you feel are relevant to the proposed changes.</p>	<p>Under Section 4 at ACS peak demand conditions, all transmission licensees secure their networks against a double circuit loss (N-D) of an overhead line and National Grid also secure against a planned outage on certain types of transmission plant followed by a fault on a single circuit (N-1-1). Because of the way the SQSS is worded there could be ambiguity at the Scottish border.</p> <p>Until the Western HVDC Link the circuits across the border were all overhead lines and a N-D fault had a more severe impact</p>

	<p>on the boundary capability than N-1-1. Post the Western HVDC link the loss of this cable can be part of a N-1-1 scenario and becomes the worst fault.</p> <p>By adding the word “wholly” to the SQSS definition of a cable being within England and Wales for assessment against these criteria we are confirming that a cable needs to be entirely within the NGET TO area to be secured to an N-1-1 standard eliminating this ambiguity.</p> <p>Securing against N-1-1 at the border negates the additional security provided by the Western Link and would result in further investment being required.</p>
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If you wish to submit a confidential response please note the following:

- iii. Information provided in response to this consultation will be published on National Grid’s website unless the response is clearly marked “Private and Confidential”. We will contact you to establish the extent of the confidentiality. A response marked “Private and Confidential” will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the NETS SQSS Review Panel and/or Grid Code Review Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.
- iv. Please note an automatic confidentiality disclaimer generated by your IT System will not in itself mean that your response is treated as if it had been marked “Private and Confidential”.



Scottish & Southern
Electricity Networks

National Grid,
Gallows Hill,
Warwick,
CV34 6DA.

Email: <mailto:box.SQSS@nationalgrid.com>

20 July 2018

Dear Sir or Madam,

GSR023 Clarification of the N-1-1 Requirements And Minor Housekeeping Change

Scottish Hydro Electric Transmission plc (SHE Transmission) note the proposed modifications to the NETS SQSS:

1. This modification seeks to modify the NETS SQSS to ensure that it reflects the history of the requirement to secure parts of the NETS against a fault outage that takes place during a planned outage (N-1-1 condition).
2. The modification also proposes a minor housekeeping change to reflect the name change of one Transmission Licensee (SHETL to SHET) in both the NETS SQSS and the corresponding NETS SQSS Industry Governance.

We have no objections to the implementation of the changes to reflect the latest version of the NETS SQSS. Our responses to the specific questions set out in the consultation response proforma are shown in Annex 1.

Please do not hesitate to get in touch if you would like to discuss this matter further.

Yours sincerely

Sajidha Iqbal
Networks Regulation

Inveralmond House, 200 Dunkeld Road, Perth PH1 3AQ  ssen.co.uk

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459; Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460; (all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales No. 04094290 having its Registered Office at 55 Vastern Road Reading Berkshire RG1 8BU which are members of the SSE Group www.ssen.co.uk



Annex 1

NETS SQSS and Grid Code Industry Consultation Response Proforma

GSR023 Clarification of the applicability of the N-1-1 Criterion and minor housekeeping change

Views are invited upon the proposals outlined in this consultation. Please submit your formal responses on this form to box.SQSS@nationalgrid.com no later than **5pm on 20 July 2018**.

The proposals set out in this consultation are intended to better meet the NETS SQSS Objectives. To achieve this, they are intended to facilitate efficient and economic connection arrangements whilst ensuring there is no impact on the safety and security of the transmission system.

These responses will be included in the Report to the Authority which is drafted by National Grid and submitted to the Authority for a decision.

Respondent:	<i>Please insert your name and contact details (phone number or email address)</i>
Company Name:	<i>Scottish Hydro Electric Transmission plc</i>
1. Based on the history and the rationale provided, do you agree that clause 4.6.6 of the NETS SQSS does not apply to the circuits interconnecting NGET's Transmission Area to SPT's Transmission Area or to SHET's Transmission Area? If not, please provide further clarification.	<i>We agree that clause 4.6.6 of the NETS SQSS does not apply to the circuits interconnecting NGET's Transmission Area to SPT's Transmission Area or to SHET's Transmission Area.</i>
2. Do you agree to the proposal to clarify clause 4.6.6 of the NETS SQSS? If not, please provide further clarification.	<i>We believe that it is important to clarify clause 4.6.6 of the NETS SQSS with regards to the N-1-1 criterion so that it reflects the basis on which the transmission system was designed. Not clarifying this clause could potentially lead to unintended interpretation which could result in potentially inefficient investment on the system.</i>
3. This modification is intended to provide clarification on existing	<i>We agree that the text composed complies with these principles as this is the current practice. The</i>



<p>requirements and to ensure that the references to the Scottish Hydro-Electric Transmission plc is up to date. It has no impact on investment or operational requirements. Does the text composed comply with these principles? If not, please provide further clarification.</p>	<p><i>clarification is simply stating the position, backed by evidence, for the avoidance of ambiguity.</i></p>
<p>4. Do you believe that GSR023 better facilitates the appropriate NETS SQSS objectives?</p>	<p><i>For reference the applicable NETS SQSS objectives are:</i></p> <p>(i) <i>facilitate the planning, development and maintenance of an efficient, coordinated and economical system of electricity transmission, and the operation of that system in an efficient, economic and coordinated manner;</i></p> <p><i>Yes</i></p> <p>(ii) <i>ensure an appropriate level of security and quality of supply and safe operation of the National Electricity Transmission System;</i></p> <p><i>Yes</i></p> <p>(iii) <i>facilitate effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the distribution of electricity; and</i></p> <p><i>Yes</i></p>

	<p>(iv) <i>facilitate electricity Transmission Licensees to comply with their obligations under EU law.</i></p> <p><i>Yes</i></p>
<p>5. Do you generally support the modifications outlined in this document? If not, please clarify your concerns.</p>	<p><i>Yes</i></p>
<p>6. Are there any further considerations that need to be taken into account?</p>	<p><i>We believe that all key evidence forming the basis of the clarification has been considered.</i></p>
<p>7. Do you agree that the proposed wording effectively resolves the defect?</p>	<p><i>Yes</i></p>
<p>8. Please provide any other comments you feel are relevant to the proposed changes.</p>	

If you wish to submit a confidential response please note the following:

- i. Information provided in response to this consultation will be published on National Grid's website unless the response is clearly marked "Private and Confidential". We will contact you to establish the extent of the confidentiality. A response marked "Private and Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the NETS SQSS Review Panel and/or Grid Code Review Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response.
- ii. Please note an automatic confidentiality disclaimer generated by your IT System will not in itself mean that your response is treated as if it had been marked "Private and Confidential".