

# Stage 02: Workgroup Consultation

Grid Code

## GC0106: Data exchange requirements in accordance with Regulation (EU) 2017/1485 (SOGL)

**Purpose of Modification:** This modification seeks to change the frequency of Week 24 static data submissions from Distribution Network Operators (DNOs) and to include information on embedded small power stations of registered capacity of less than 1MW in Week 24 data to facilitate changes arising from the EU Regulation System Operation Guideline (SOGL).

This document details the discussions of the Joint Grid Code and Distribution Code Workgroup which formed in November 2017 to develop and assess the proposal. Any interested party is able to make a response in line with the guidance set out in Section 10 of this document.

**Published on:** XX March 2018

**Length of Consultation:** 15 working days

**Responses by:** XX April 2018



**High Impact:** Independent Distribution Network Operators, Distribution Network Operators, Interconnectors and Transmission owners (incl OFTOs) and GB National Electricity Transmission System Operator (NETSO) are all potentially impacted



**Medium Impact:** Distribution connected Generators, Demand response and reserve providers and Interconnectors are potentially impacted



**Low Impact:** Transmission connected Generators and demand Customers

What stage is this document at?

01	Modification Proposal
02	Workgroup Consultation
03	Workgroup Report
04	Industry consultation
05	Report to the Authority

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### Any Questions?

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## Timetable

The following timetable has been approved by the Grid Code Review Panel<sup>1</sup>:

Proposal to Grid Code Review Panel	Oct 2017
Proposal to Distribution Code Panel	Oct 2017
Workgroup Meeting 1	Nov 2017
Workgroup Meeting 2	Dec 2017
Workgroup Code Mapping Meeting	Jan 2018
Workgroup Consultation (start/end)	22 Mar 2018/17 Apr 2018
Workgroup Report to Grid Code Review Panel	20 Jun 2018
Code Administration Consultation	Jun 2018
Draft Final Modification Report to Grid Code Review Panel	Jul 2018
Grid Code Review Panel Recommendation Vote	Jul 2018
Publish/Submit Final Modification Report to the Authority	Jul 2018
Decision implemented in Grid Code	Sep 2018
Date of SOGL implementation	EIF+18m

<sup>1</sup> [https://www.nationalgrid.com/sites/default/files/documents/GC0106%20timeline\\_0.pdf](https://www.nationalgrid.com/sites/default/files/documents/GC0106%20timeline_0.pdf)

## About this document

This document is a Workgroup Consultation which seeks the views of Grid Code and interested parties in relation to the issues raised by the Original GC0106 Grid Code Modification Proposal which was raised by National Grid Electricity Transmission and developed by the Workgroup.

Parties are requested to respond by 5pm on **XX April 2018** to [grid.code@nationalgrid.com](mailto:grid.code@nationalgrid.com) using the Workgroup Consultation Response Proforma which can be found on the following link:

<https://www.nationalgrid.com/uk/electricity/codes/grid-code/modifications/data-exchange-requirements-accordance-regulation-eu-0>

## Acronyms used in this document

<b>SOGL (TSOG)</b>	System Operation Guideline (Transmission System Operation Guideline)
<b>EIF</b>	Entry Into Force
<b>SGU</b>	Significant Grid User
<b>PGM</b>	Power Generating Module
<b>KORRR</b>	Key Organisational Requirements, Roles and Responsibilities

## 1 Summary

This report aims to document how Workgroup discussions have evolved around the defined scope to develop the Proposer's solution including any alternative options, and all supporting justification.

GC0106 was proposed by National Grid and the DNOs and submitted to the Grid Code Review Panel on 18 October 2017<sup>2</sup>. It was presented to the Distribution Code Review Panel on 26 October 2017<sup>3</sup>.

The Grid Code Review Panel decided to form a Workgroup to develop and assess the Proposal against the Grid Code Applicable Objectives (see Section 7). The Distribution Code Panel agreed to support GC0106 as a Joint Workgroup.

Section 2 (Original Proposal<sup>4</sup>) and Section 6 (Proposer's Solution) are sourced directly from the Proposer and any statements/assertions have not been altered/substantiated/supported/refuted by the Workgroup. Section 9 of the Workgroup Consultation contains a summary of Workgroup discussions based on the Proposal and potential solution.

The Terms of Reference (ToR) as agreed by the Grid Code Review Panel and the Distribution Code Panel defines the scope of work to be progressed by the Workgroup in addition to specific areas to be considered. The ToR can be found in Annex XX.

## 2 Original Proposal

***Section 2 (Original Proposal) is sourced directly from the Proposer and any statements or assertions have not been altered or substantiated/supported or refuted by the Workgroup. Section 8 of the Workgroup Consultation contains the discussion by the Workgroup on the Proposal and the potential Solution.***

### ***What***

Data exchange provisions that already exist in the Grid Code need to be reviewed to ensure that they are in line with the data exchange requirements listed in EU regulation 2017/1485 also known as SOGL (System Operation Guideline).

Additionally this Regulation requires the creation of a pan-European proposal on the Key Organisational Requirements, Roles and Responsibilities (KORRR) for data exchange across Europe to be developed by all TSOs. This document may subsequently require some additional changes and/or new requirements to be

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<sup>2</sup> <https://www.nationalgrid.com/uk/electricity/codes/grid-code/meetings/grid-code-panel-meeting-18102017>

<sup>3</sup> [http://www.dcode.org.uk/assets/uploads/DCRP\\_17\\_05\\_01\\_Agenda\\_26-10-17\\_draftv1\\_ds\\_1.pdf](http://www.dcode.org.uk/assets/uploads/DCRP_17_05_01_Agenda_26-10-17_draftv1_ds_1.pdf)

<sup>4</sup>

<https://www.nationalgrid.com/sites/default/files/documents/PP4.%20GC0106%20Data%20exchnage%20requirement.pdf>

added to the GB Grid code. This will be considered by the workgroup in parallel as this pan-European document is developed. It is anticipated that the Operational Code (OC), the Planning Code (PC) and Data Registration Code (DRC) are the relevant sections of the GB Grid code that are most likely to be impacted. A code mapping exercise was carried out with GB stakeholders on the requirements of SOGL and how these mapped to the existing GB frameworks.

### ***Why***

Guidance from BEIS and Ofgem was to apply the new EU requirements within the existing GB regulatory frameworks and using the existing governance processes. This would provide accessibility and familiarity to GB parties, as well as putting in place a robust governance route to apply the new requirements in a transparent and proportionate way.

The SOGL entered into force (EIF) on 14 September 2017 and as such all countries of the European Union need to comply with it. Within this regulation there is a section concerned with data exchange requirements (articles 40-53) which is the scope of this modification proposal. These articles have a specific timeline for implementation which is 18 months after the SOGL EIF which is 14 March 2019; this is the timescale that this modification needs to be implemented by.

### ***How***

In line with Ofgem advice, this modification will make only those changes necessary to the relevant industry documents to ensure compliance with the European codes and guidelines. So in this case, only the necessary changes to existing data exchange provisions in the Grid and Distribution codes will be made to ensure GB is compliant with the requirements detailed in SOGL to also include any new provisions that may be required resulting from the pan-European KORRR.

### ***When***

As already mentioned the Data Exchange section of SOGL has a specific time line that means it applies 18 months after EIF, so by 14 March 2019. The all-TSO KORRR proposal is required 6 months after EIF which is 14 March 2018 following which there is a 6 month approval period, by the collective NRAs, ending in September 2018, before then applying along with the rest of the data exchange section as explained above. As this is a major dependency, the modification proposal will be running in parallel with the development of the KORRR so that as and when this is available it will allow for the maximum implementation time.



### 3 Governance

This modification should be subject to Authority decision as it may have a material impact on several different classes of parties; it should also be considered in parallel with the pan-European data exchange agreement (KORRR) by the Authority as this is a major dependency.

#### Requested Next Steps

This modification should: be assessed by a Workgroup

Note that some preliminary work was already done under the previous GC0095 SOGL stakeholder engagement workgroup as part of an overall SOGL assessment and mapping and it is anticipated that previous members of the GC0095 workgroup are likely to wish to continue this engagement.

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Gridcode/Modifications/GC0095/>

### 4 Why Change?

This Proposal is one of a number of Proposals which seek to implement relevant provisions of a number of new EU Network Codes/Guidelines which have been introduced in order to enable progress towards a competitive and efficient internal market in electricity. The EU Network Guidelines have been published resulting in a review of solutions for existing Codes. The full set of EU network guidelines are;

- Regulation 2015/1222 – Capacity Allocation and Congestion Management (CACM) which entered into force 14 August 2015
- Regulation 2016/1719 – Forward Capacity Allocation (FCA) which entered into force 17 October 2016
- Regulation 2016/631 - Requirements for Generators (RfG) which entered into force 17 May 2016
- Regulation 2016/1388 - Demand Connection Code (DCC) which entered into force 7 September 2016
- Regulation 2016/1447 - High Voltage Direct Current (HVDC) which entered into force 28 September 2016
- **Regulation 2017/1485 - Transmission System Operation Guideline (SOGL) - which entered into force 14 September 2017**
- Regulation 2017/2196 - Emergency and Restoration (E&R) Guideline which entered into force 18 December 2017
- Regulation 2017/2195 Electricity Balancing Guideline (EBGL) which entered into force 18 December 2017

This modification is required as part of the implementation of SOGL which as a whole aims to determine common operational security requirements and principles which will ensure security of supply whilst enabling cross border exchanges and the single energy market.

Specifically, in SOGL, the data exchange requirements under the heading of Title 2, which is Articles 40 – 53, sets out a common framework for data exchange between parties in order to ensure operational security during planning timescales and close to real time. Additionally Article 40, paragraph 6, requires an all-TSO pan-European proposal on Key Organisational Requirements, Roles and Responsibilities (KORRR) relating to data exchange to be developed. This proposal will sets out how these data exchanges will be organised and determined particularly in relation to different parties' roles and responsibilities.

SOGL Articles 40-53 form the scope of work this modification seeks to address. Whilst there are links to other sections of SOGL that are important to understand they will be out of scope. Other Modifications (if required) will be raised in due course to address other sections of SOGL that may entail changes to the GB codes.

### ***Reference Documents***

COMMISSION REGULATION (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation:

<https://publications.europa.eu/en/publication-detail/-/publication/d09a428c-8957-11e7-b5c6-01aa75ed71a1/language-en/format-PDFA1A> Specifically Articles 40-53

Pan-European proposal on Key Organisational Requirements, Roles and Responsibilities (KORRR) in accordance with article 40, paragraph 6 of SOGL  
(as yet unpublished, link to be updated when available)

## 6 Solution

This modification aims to ensure the Grid and Distribution Codes reflect the technical requirements set out in SOGL Articles 40-53 (data exchange) for GB compliance with EU legislation. This will be achieved by retaining the existing Grid Code and Distribution Code text, unless there is a conflict with the SOGL requirements, or the SOGL requirements require new additions which are not reflected in the current GB Grid Code and Distribution Code.

For the purposes of this consultation the following principles have been adopted:

- i) Retain the same structure and format as the current GB Grid and Distribution Codes
- ii) Retain the current requirements of the GB Grid and Distribution Codes unless there is good reason not to do so – for example there is either a conflict between the EU Codes and the GB codes or the EU Code requires additions to the GB Codes.
- iii) Ensure that the revised GB Codes are easy to understand and use by those parties affected by them.
- iv) Ensure consistency between the Grid and Distribution Codes and associated industry documents.

GC0095 and the subsequent work under GC0106 identified two specific changes necessary to the Grid and Distribution Codes. They are highlighted as follows:

- Amend the submission process of offline or 'static' network data from an annual process to a 6 monthly cycle (SOGL Article 43, paragraph 4)
- Include the total aggregated generating capacity for all generating modules less than 1MW split per primary energy source (SOGL Article 43, paragraph 5).

Article 40.5 SOGL allows for TSO discretion on some of the Articles. This proposal therefore has a focus on making changes only to the mandatory Articles with no TSO discretion. The following outlines the GB position for each Article, and the solution for ensuring compliance with EU legislation.

### **Article 40 - Organisation, roles, responsibilities and quality of data exchange**

There are no identified changes for GB implementation in this Article as it is mainly context setting and interpreting other articles in the 41-53 ranges. Compliance is met therefore through existing GB frameworks and governance. The applicability and scope of data exchange is based on existing Grid Code obligations. There is a potential impact from the all-TSOs methodology which requires all TSOs to jointly agree the KORRR. The impact of KORRR has been considered by the workgroup to this date, with the existing state of the draft KORRR. There is no change required as a result at this time.

### **Article 41 - Structural and forecast data exchange**

An outline of requirements for neighbouring TSOs to exchange structural information related to their observability areas. Structural Data for the Common Grid models is already exchanged as per Regulation 2015/1222 (ie CACM). Other changes may result from the re-definition of observability areas which will be developed separately in accordance with SOGL Article 75. The joint proposal

recommendation is based on existing observability areas used for Week 24 data submissions. Therefore a Grid Code change is not required for this article.

#### **Article 42 - Real-time data exchange between TSOs**

Real time Data between TSOs is done through Operational Planning Data Environment by the System Operator as per Article 114 SOGL. Other data exchanges within GB will continue to be carried out through existing STC obligations. Therefore a Grid Code change is not required for this article.

#### **Article 43 - Structural data exchange**

Grid Code changes are required to ensure compliance of Article 43 paragraphs 4 and 5. The proposals are as follows:

- Changes to the submission process of offline or 'static' network data from an annual process to a 6 monthly cycle. This will only impact Schedule 5 of the Week 24 submissions in respect to SOGL Article 43, paragraph 4. As this is an obligation on DNOs, there is no need to modify the Distribution Code.
- Changes to include total aggregated generating capacity for all generating modules less than 1MW split per primary energy source. This is in respect to SOGL article 43, paragraph 5. The fuel type list derived from the Manual of Procedures for the ENTSO-E Central Information Transparency Platform will be used. DNOs currently collect data in this form there is no need to modify the Distribution Code.

The legal text will be amended in the Planning Code section of the Grid Code (Appendix A – Planning Data Requirements).

#### **Article 44 – Real time data exchange**

This is one of the flexible Articles as real time data exchange between TSO and DSOs is not a mandatory requirement in the Grid Code. Changes to the Grid Code will be raised in future based on changes to system operation requirements. For compliance of SOGL, National Grid will not request an amendment to the Grid Code as flexibility is provided for in Article 40.5.

#### **Data exchange between TSOs, owners of interconnectors or other lines and power generating modules connected to the transmission system**

#### **Article 45 - Structural data exchange**

This defines the requirements for each Significant Grid User (SGU) which is a power generating facility owner of either a type D, type C or type B power generating module connected to the transmission system to provide the TSO with structural data. These requirements are currently covered in the Connection Conditions, Operating Codes and Planning Code sections of the Grid Code and in the Balancing Settlement Code.

The technical requirements of GB services are not expected to change as a result of implementation of the SOGL regulation therefore, no changes will result from Articles 154, 158 and 161.

The requirements for AC interconnector owners are not applicable in GB. In summary, a Grid Code change is not required for this article.

#### **Article 46 – Scheduled data exchange**

This defines the requirements for each SGU which is a power generating facility owner of either a type D, type C or type B power generating module connected to the transmission system shall provide the TSO with scheduled data, depending on their type. These requirements are currently covered in Physical Notification (PN) submissions as part of BC1 Pre Gate Closure Process and Operating Codes sections of the Grid Code; therefore a Grid Code change is not required for this article.

#### **Article 47 - Real-time data exchange**

This defines the requirements for each SGU which is a power generating facility owner of either a type D, type C or type B power generating module connected to the transmission system to provide the TSO with real-time data, depending on their type. Article 47 is flexible hence the existing code frameworks and agreements will be maintained until future modifications are raised in accordance with the Grid Code Governance.

#### **Data exchange between TSOs, DSOs and Distribution-connected power generating modules:**

#### **Article 48 - Structural data exchange**

This is a flexible article as per SOGL Article 40.5, therefore requirements of this article will be covered by existing data exchange arrangements according to the Grid Code framework. Future modifications can be raised under normal governance arrangements based on changes to system operational requirements.

#### **Article 49 - Scheduled data exchange**

This is a flexible article as per SOGL Article 40.5, the requirements of this article will be covered by existing data exchange arrangements as per the Grid Code framework. Future modifications can be raised under normal governance arrangements based on changes to system operational requirements.

#### **Article 50 – Real-time data exchange**

This is a flexible article as per SOGL Article 40.5, the requirements of this article will be covered by existing data exchange arrangements as per the Grid Code framework. Future modifications can be raised under normal governance arrangements based on changes to system operational requirements.

#### **Article 51 - Data exchange between TSOs and DSOs concerning significant power generating modules**

This is a flexible article as per SOGL Article 40.5, the requirements of this article will be covered by existing data exchange arrangements as per the Grid Code framework. Future modifications can be raised under normal governance arrangements based on changes to system operational requirements.

#### **Article 52 - Data exchange between TSOs and transmission-connected demand facilities**

This is a flexible article as per SOGL Article 40.5, the requirements of this article will be covered by existing data exchange arrangements as per the Grid Code

framework. Future modifications can be raised based on changes to system operational requirements.

### **Article 53 – Data exchange between TSOs and distribution-connected demand facilities or third parties participating in demand response**

Article 53 is a flexible article, therefore, no changes are proposed as compliance is met through existing C16 process and the standard contract agreements. The workgroup acknowledged that demand side services are determined under GC0104 and a new Grid Code section may be necessary to deal with demand side providers. For the purpose of GC0106, no modification is proposed with regards to data exchange between the TSO and demand response providers as this will continue through existing contract agreements.

## **7 Impacts and Other Considerations**

- i. The Grid Code and Distribution Code will bear the primary impact of the SOGL Data exchange modification
- ii. No system changes are anticipated as a result of implementing the EU Connection Codes
- iii. Under flexibility accorded in SOGL Article 40.5, this proposal will only consider changes to the mandatory Articles as listed in section 1 of this document to achieve full compliance. Future modifications may be raised based on system needs and requirements for the TSO.
- iv. The specific requirements in relation to reserve services will be dependent on the outcome of the “Synchronous Area Operation Agreement” workstream.
- v. There are other indirect links to Coordinated Security Analysis (CSA) work under SOGL, for which another modification proposal will likely be raised in the near future and will endeavour to work in parallel as much as possible to best understand this link.
- vi. This proposal is also dependent on the pan-European KORRR which will be submitted to all NRAs on 14<sup>th</sup> March with a decision expected six months later.

***Does this modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?***

No.

### ***Consumer Impacts***

No.

## **8 Implementation**

This modification must be in place to ensure the data exchange requirements of SOGL are set out in the GB Grid and Distribution codes *by* eighteen months from Entry Into Force - 14 September 2017. It is therefore crucial that this work is concluded swiftly to allow the industry the maximum amount of time to consider what they need to do to ensure compliance.

## 9 Workgroup Discussions

Since its formation by the Grid Code Review Panel in October 2017 and prior to the issuing of this Workgroup Consultation, the GC0106 Workgroup has convened four<sup>5</sup> times to develop the solution against the scope and Grid Code Applicable Objectives. The Workgroup continues to develop the original proposed solution. Alternatives have not been developed to date. All alternative requests submitted during the Consultation will be reviewed and considered as formal alternatives by the Workgroup at the appropriate time in the Workgroup process.

Any formal Alternatives (as those which are determined as such by Workgroup vote) will be developed with legal text and will be submitted to Ofgem as part of the Final Modification Report.

At the initial Workgroup in November, the Proposer presented the defect as outlined in the original modification proposal and the scope of GC0106. Through presentational material<sup>6</sup>, the Proposer highlighted two component parts of the modification as follows:

1. The direct data requirements taken from System Operation Guidelines (SOGL)
2. Changes arising from the all Transmission System Operator proposal on Key Organisational Requirements, Roles and Responsibilities (KORRR)

### ***Legal Interpretation of flexibility***

The Workgroup agreed that applicability and scope of the data exchange will be based on the existing Grid Code framework recognising flexibility as accorded in Article 40.5 SOGL. There was lengthy discussion in the first and second Workgroup meetings over the interpretation of how flexibility should indeed be applied under Article 40.5 SOGL. Article 40.5 SOGL states that each TSO is to determine, in coordination with Distribution System Operator (DSO) and Significant Grid Users (SGU) the applicability and scope of the data exchange in relation to Articles 44, 47, 48, 49, 50, 51, 52, 53 SOGL for which data exchange is to take place unless the TSO determines otherwise. The Proposer clarified their interpretation as one which allows for flexibility in the implementation of the Articles that begin with “*unless otherwise provided by the TSO...*” Articles 41, 42, 43, 45 and 46 are therefore treated as mandatory and as a result all proposed changes will be made on the mandatory Articles to ensure compliance.

Balanced against another Workgroup member’s own interpretation and as requested by the Workgroup for clarity, further legal guidance was sought from National Grid given the consequences of the data exchange requirements on grid users. This legal advice supported the proposer interpretation of flexibility. The majority of the Workgroup agreed to develop the original proposal based on this

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<sup>5</sup> 2 November 2017, 6 December 2017, 12 January 2018, 28 February 2018

<sup>6</sup>

[https://www.nationalgrid.com/sites/default/files/documents/Pr2.%20%20GC0106%20Presentation\\_1.pdf](https://www.nationalgrid.com/sites/default/files/documents/Pr2.%20%20GC0106%20Presentation_1.pdf)

interpretation of flexibility, meaning that the same requirements, structure and format as the current GB Grid and Distribution Codes is to be retained. Workgroup members were reminded of the process to raise alternative requests in order to reflect any different interpretation(s).

Workgroup members recognised that some of the data exchange Articles have flexibility determined by the *Transmission System Operator* as both necessary and legal. Existing GB code provisions will remain in place for flexible Articles and modifications will be raised when necessary in the future.

### ***Key Organisational Requirements, Roles and Responsibilities***

The SOGL Regulation requires the creation and development of a pan-European proposal by all TSOs on the Key Organisational Requirements, Roles and Responsibilities (KORRR) for data exchange across Europe. Until approved by all EU Regulators (expected September 2018) this document may subsequently require some additional changes and/or new requirements to be added to the GB Grid code. The Workgroup is aware of the interdependency and has considered the KORRR's development and impact in parallel.

A link to the original KORRR Consultation which closed at the start of December is provided here<sup>7</sup>.

### ***Implementation/Timeline***

The Workgroup recognised the specific time line referenced in article 192 of SOGL for Data Exchange which states that Articles 41-53 will apply 18 months after EIF, so by 14 March 2019. The all-TSO KORRR proposal is required 6 months after EIF (14 March 2018). It then has a 6 month approval period by the National Regulation Authorities (NRAs) which ends in September 2018, before it is applied along with the rest of the Data Exchange sections as explained in the above solution. Given this intrinsic dependency, the modification proposal runs in with the development of the KORRR such that both will be submitted for approval in the same timeframe. This is important to allow the maximum lead time in implementation and compliance.

### ***Code mapping***

The Workgroup commenced a full code mapping exercise during the third Workgroup in order to establish how the EU regulation mapped to the existing GB frameworks. Through the exercise, Workgroup members agreed that sections of the Grid Code Planning Code (PC) will need to be amended to ensure that they are aligned to the data exchange requirements listed in EU regulation 2017/1485 SOGL. The affected users will need to comply with the new additions. No changes were identified as being needed for the Distribution Code. Discussions also focussed on an aspect of work covered by GC0104, specifically a new section to the Grid Code (Demand Response Services Code) that would specifically cater for Demand Response Services.

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<sup>7</sup> <https://consultations.entsoe.eu/system-operations/korrr/>

Comments arising from the Code Mapping exercise can be summarised as follows:

**1. General Requirements on data exchange**

Article 40: There are no identified changes for GB implementation in this Article as compliance is achieved through existing GB frameworks and governance. The impact of KORRR was considered by the Workgroup. Other changes may result from the establishment of observability areas which will be developed separately in accordance with Article 75. Workgroup discussions on observability were based on existing observability areas used for Week 24 data submissions.

**2. Data Exchange between TSOs**

Article 41 – 42: No changes as existing TSO data exchange as per the System Operator Transmission Owner Code and Procedures are sufficient for compliance of the listed Articles. Structural Data for the Common Grid models is already exchanged through the IGM process as per Regulation 2015/1222. Real time Data between TSOs is done through Operational Planning Data Environment by the System Operator as per Article 114.

**3. Data Exchange between TSOs and DSOs within the TSOs control area**

Article 43: Grid Code changes are required to ensure compliance of Article 43 paragraphs 4 and 5. The proposed changes relate to the frequency of the Week 24 data submissions and submission of aggregated small generation less than 1MW to be aggregated by fuel type as detailed in the solution section of this proposal.

Article 44 is currently not included in the Grid Code as such there is no real time data exchange between the TSO and DNOs. Changes to the Grid Code will be raised in future based on changes to system operation requirements. For compliance of SOGL, National Grid will not request an amendment to the Grid Code as flexibility is provided for in Article 44.

**4. Data Exchange between TSOs, owners of interconnectors or other lines and power generating modules connected to the transmission system**

Article 45 – 47: Articles 45 and 46 are mandatory and compliance has been met through the Grid Code and Balancing and Settlement Code. Provision of data from power generating owners that provide Ancillary Services to the TSO will be achieved through the contract agreements. Dependencies on Articles 154, 158 and 161 will be handled through Synchronous Area Operation Agreement workstream. Article 47 is flexible hence the existing code frameworks and agreements will be maintained until future modifications are raised in accordance with the Grid Code Governance.

**5. Data exchange between TSOs, DSOs and distribution-connected power generating modules**

Article 48 – 50: These are flexible Articles hence no modifications are proposed. Compliance is met through existing code frameworks and

agreements subject to future modifications in accordance with the Grid Code Governance.

#### **6. Data exchange between TSOs, and DSOs concerning significant power generating modules**

Article 51 is a flexible Article, therefore, no changes are proposed as compliance is met through existing code frameworks and agreements until future modifications are raised in accordance with the Grid Code Governance.

#### **7. Data exchange between TSOs and demand facilities**

Article 52 is a flexible Article, therefore, no changes are proposed as compliance is met through existing code frameworks and agreements until future modifications are raised in accordance with the Grid Code Governance.

#### **8. Data exchange between TSOs and distribution-connected demand facilities or third parties participating in demand response.**

Article 53 is a flexible Article, therefore, no changes are proposed as compliance is met through existing C16 process and the standard contract agreements. The workgroup acknowledged the demand side requirements under GC0104 as driven by the Demand Connection Code (DCC) and noted that further discussions are required and would be carried out through GC0106 and the Power Responsive Flexibility workstream. It has since been agreed that a new Grid Code section is necessary to deal with demand side providers through GC0104.

Please note that all presentations provided and discussed at the Workgroup meetings can be found under the 'Workgroup' tab via the following link:

<https://www.nationalgrid.com/uk/electricity/codes/grid-code/modifications/data-exchange-requirements-accordance-regulation-eu-0>

## **10 Workgroup Consultation Questions**

The GC0106 Workgroup is seeking the views of Grid Code Users and other interested parties in relation to the issues noted in this document and specifically in response to the questions highlighted in the report and summarised below:

Standard Workgroup Consultation questions:

1. Do you believe that GC0106 Original Proposal or any potential alternatives for change that you wish to suggest, better facilitates the Grid Code Objectives?
2. Do you support the proposed implementation approach?
3. Do you have any other comments?
4. Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?

Specific GC0106 Workgroup Consultations:

5. For those respondents that are impacted by the flexible Articles (44, 47 – 53) are you aware that existing data exchange principles will be maintained until future system and market changes, other modifications and methodologies are developed. Do you have any comments on these requirements and obligations?
6. Do you believe that the solution described in this Workgroup Report aligns with current arrangements?

Please send your response using the Response Proforma which can be found on the National Grid website via the following link:

<https://www.nationalgrid.com/uk/electricity/codes/grid-code/modifications/data-exchange-requirements-accordance-regulation-eu-0>

Views are invited upon the proposals outlined in this report, which should be received by 5pm on XXXXX April 2018. Your formal responses may be emailed to: [grid.code@nationalgrid.com](mailto:grid.code@nationalgrid.com)

If you wish to submit a confidential response, please note that information provided in response to this consultation will be published on National Grid's website unless the response is clearly marked "Private & Confidential", we will contact you to establish the extent of the confidentiality. A response marked "Private & Confidential" will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Grid Code Review Panel or the industry and may therefore not influence the debate to the same extent as a non-confidential response. 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".

## 11 Relevant Objectives (Initial Proposer Assessment)

SOGI is one of the eight EU Connection Codes which derive from the Third Energy Package legislation; focused on setting minimum system security, operational planning and frequency management standards to ensure safe and coordinated system operation across Europe, creating a standardised framework on which regional cooperation including balancing markets can be implemented. It therefore directly supports three of the five Grid Code Objectives as indicated below.

Impact of the modification on the Relevant Objectives:	
Relevant Objective	Identified impact
To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity	Neutral
To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity)	Neutral
Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole	Neutral
To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and	Positive
To promote efficiency in the implementation and administration of the Grid Code arrangements	Neutral

This modification is necessary to ensure GB compliance of EU legislation in a timely manner, which positively supports the third Distribution Code applicable objective

Impact of the modification on the Distribution Code Relevant Objectives:	
Relevant Objective	Identified impact
Permit the development, maintenance, and operation of an efficient, coordinated and economical System for the distribution of electricity.	<b>Neutral</b>
Facilitate competition in the generation and supply of electricity.	<b>Neutral</b>
Efficiently discharge the obligations imposed upon DNOs by the Distribution Licence and comply with the Regulation (where Regulation has the meaning defined in the Distribution Licence) and any relevant legally binding decision of the European Commission and/or Agency for the Co-operation of Energy Regulators.	<b>Positive</b>
Promote efficiency in the implementation and administration of the Distribution Code.	<b>Neutral</b>

## 12 Legal Text

So far one concrete text modification has been identified and proposed below, although more are likely to be needed.

### PC.A.1.2

#### Submissions by Users

(a) Planning data submissions by **Users** shall be:

(i) with respect to each of the seven succeeding **Financial Years** (other than in the case of **Registered Data** which will reflect the current position and data relating to **Demand** forecasts which relates also to the current year);

(ii) provided by **Users** in connection with a **CUSC Contract** (PC.4.1, PC.4.4 and PC.4.5 refer);

(iii) provided by **Users** on a routine ~~annual~~ **6 monthly** basis in calendar week 24 ~~and week 50~~ of each year to maintain an up-to-date data bank (although **Network Operators** may delay the submission of data (other than that to be submitted pursuant to PC.3.2(c) and PC.3.2(d)) until calendar week 28 ~~or week 2~~). Where from the date of one ~~annual~~ submission to another there is no change in the data (or in some of the data) to be submitted, instead of re-submitting the data, a **User** may submit a written statement that there has been no change from the data (or some of the data) submitted the previous time; and

(iv) provided by **Network Operators** in connection with **Embedded Development** (PC.4.4 refers).

#### *PC.A.1.2 Text Commentary*

The aim of the modified text is simply to change the submission cycle from annually to 6 monthly for static network data in accordance with article 43, 4).

### PC.A.3.1.3

(a) Each **Network Operator** shall provide **NGET** with the data specified in PC.A.3.2.2(c)(i) and (ii) and PC.A.3.2.2(i).

(b) **Network Operators** need not submit the planning data **required by PC.A.3.1.3(a)** in respect of an **Embedded Small Power Station** unless required to do so under PC.A.1.2(b) or unless specifically requested under PC.A.3.1.4 below, in which case they will supply such data.

### PC.A.3.1.4

(a) PC.A.4.2.4(b) and PC.A.4.3.2(a) explain that the forecast **Demand** submitted by each **Network Operator** must be net of the output of all **Small Power Stations** and **Medium Power Stations** and **Customer Generating Plant** and all installations of direct current converters which do not form a

**DC Converter Station, Embedded** within that **Network Operator's System**. The Network Operator must inform NGET of:

- (i) .....
- (ii) .....
- (iii) beginning from the 2019 Week 24 data submission, for each **Embedded Small Power Station** with a **Registered Capacity** (as defined in the **Distribution Code**) of 1MW or less:
  - 1. A reference which is unique to each Network Operator;
  - 2. The aggregated **Registered Capacity** of each **Embedded Small Power Station** by type from the list in PC.A.3.1.4 (a)(ii)(2)(a) at each **Grid Supply Point** first connected on or after **14 March 2019**; and
  - 3. The total number of Power Generating Modules.

~~(a) PC.A.4.2.4(b) and PC.A.4.3.2(a) explain that the forecast Demand submitted by each Network Operator must be net of the output of all Small Power Stations and Medium Power Stations and Customer Generating Plant and all installations of direct current converters which do not form a DC Converter Station, Embedded within that Network Operator's System. The Network Operator must inform NGET of:~~

~~(i) the number of such Embedded Power Stations and such Embedded installations of direct current converters (including the number of Generating Units or Power Park Modules or DC Converters) together with their summated capacity; and~~

~~(ii) beginning from the 2015 Week 24 data submission, for each Embedded Small Power Station of registered capacity (as defined in the Distribution Code) of 1MW or more:~~

- ~~1. A reference which is unique to each Network Operator;~~
- ~~2. The production type as follows: Issue 5 Revision 15 PC 03 February 2016 29 of 72~~

~~a) (i) In the case of an Embedded Small Power Station first connected on or after 1 January 2015, the production type must be selected from the list below derived from the Manual of Procedures for the ENTSO-E Central Information Transparency Platform:~~

- ~~-Biomass;~~
- ~~-Fossil brown coal/lignite;~~
- ~~-Fossil coal-derived gas;~~
- ~~-Fossil gas;~~
- ~~-Fossil hard coal;~~
- ~~-Fossil oil;~~
- ~~-Fossil oil shale;~~
- ~~-Fossil peat;~~
- ~~-Geothermal;~~
- ~~-Hydro pumped storage;~~
- ~~-Hydro run-of-river and poundage;~~
- ~~-Hydro water reservoir;~~
- ~~-Marine;~~
- ~~-Nuclear;~~
- ~~-Other renewable;~~
- ~~-Solar;~~
- ~~-Waste;~~

~~-Wind offshore;  
-Wind onshore; or –  
Other;  
together with a statement as to whether the generation forms part of a  
CHP scheme;~~

~~a) (ii) Submission of aggregated embedded Small Power Station of less  
than 1MW per fuel type as per the list below:~~

~~-Biomass;  
-Fossil brown coal/lignite;  
-Fossil coal derived gas;  
-Fossil gas;  
-Fossil hard coal;  
-Fossil oil;  
-Fossil oil shale;  
-Fossil peat;  
-Geothermal;  
-Hydro pumped storage;  
-Hydro run-of-river and poundage;  
-Hydro water reservoir;  
-Marine; – Nuclear;  
-Other renewable;  
-Solar;  
-Waste;  
-Wind offshore;  
-Wind onshore; or –  
Other;  
together with a statement as to whether the generation forms part of a  
CHP scheme;~~

**Draft table that will form part of week 24 return**

#### *PC.A.3.1.4 Text Commentary*

The aim of the new text is simply to request submission of aggregated capacity per fuel type for all generation less than 1MW for each Network Operator for the current year.